COMMERCIAL
ENVELOPE
WALLCOVERING
SPECIAL COATING
STRATA

SPECTRUM PAINTING LTD

4157 Grandview Hwy
Burnaby BC V5C 4J1
T: 604 437 9150
F: 604 437 9155

Strata Plan LMS 280 - 1272 Comox Street, Vancouver

Chateau Comox

PROJECT CLOSE-OUT MANUAL

Sept 24, 2019

COMMERCIAL
RESIDENTIAL
WALLCOVERING
SPECIAL COATING
STRATA

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info@spectrumpaintingltd.com

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GOLD 2011 VRCA Awards of Excellence Winner

MPI THE MASTER PAINTERS INSTITUTE

MASTER PAINTERS AND DECORATORS ASSOCIATION QUALITY ASSURANCE

BCCSA BC Construction Safety Alliance CAR CERTIFIED

General Introduction: Work under this contract includes general building envelope maintenance at 1272 Comox Street, Vancouver.. Some of the scope items which will require routine maintenance are the sealants, painting, and membrane coatings.

Contacts :

Engineer : Spratt Emanuel Engineering Ltd

John Drinkwater 604 872 1211 jjdrinkwater@sprattemanuel.com

General Contractor : Spectrum Painting & Restorations Ltd - 4157 Grandview Hwy Burnaby BC V5C 4J1

Project Manager : Adam Racanelli 604 437 9150 adam@spectrumpaintingltd.com

Operations Manager: Sam Zukanovich 778 834 4942 sam@spectrumpaintingltd.com

Site Superintendent : RRocco 604 437 9150

SPRATT EMANUEL
ENGINEERING LTD.

2348 Yukon Street
Vancouver, BC V5Y 3T6
Phone 604 872-1211
Fax 604 872-1274
E-mail see@telus.net

OBSERVATION REPORT

Project: **Strata Plan LMS 280 – Chateau Comox**
1272 Comox Street
Vancouver, B.C.

File No. S18-558
Report No. 1
Date: May 08, 2019
Weather: Sun, 18°C

Client: Strata Plan LMS 280 – Chateau Comox
c/o Southview Property Management
110 – 7580 River Road
Richmond, B.C.
V6X 1X6

Attention:	Mr. Kevin Green	kevingreen@telus.net
	Chateau Comox Strata Council	chateaucomox@gmail.com
	Mr. Chris Clark	dcclark333@gmail.com
	Mr. Don Davidson	dondavidson67@yahoo.ca
Contractor:	Spectrum Painting Ltd.	
Attention:	Mr. Adam Racanelli	adam@spectrumpaintingltd.com
	Mr. Sam Zukanovic	sam@spectrumpaintingltd.com

ITEM: Building Envelope Field Review

Item	Comment	Action By	Date Cleared	Cleared By
1.1	John Drinkwater, P.Eng. of Spratt Emanuel Engineering Ltd. (SEE) attended the above noted development on May 8, 2019 to conduct a building envelope field review. The following are the observations of the writer.			
1.2	Spectrum Painting has begun work on the first drop of this project, Drop No. 1, located on the east half of the north elevation. At the time of review, pressure washing was complete and first coat paint application was underway on the stucco walls (Photo No. 1.1).			
1.3	For field walls areas, the contractor is utilizing Dulux Diamond exterior latex paint. Balcony guardrails and other metal components will be painted with Devoe Devlac 1437 enamel. Strata Council has approved the colour match for both products. SEE will send under separate cover a record of the products and colour match formulas for the strata's records (Photos No. 1.2 and 1.3).			
1.4	SEE reviewed the scope and extent of repainting. At window jambs, the paint application shall extend across both window perimeter sealant beads, terminating at the edge of the window frame. At the balcony soffits, the soffit shall be coated with flat sheen paint while the vertical surfaces and walls shall receive semi-gloss. The transition from flat to semi-gloss shall occur in the drip edge where available, or at the lowest edge of the 45° cant where no drip edge is cast into the concrete (Photos No. 1.4 to 1.6).			

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OBSERVATION REPORT

1.5	Drop No. 1, Level 8: Rusted steel and minor concrete spalls were uncovered along the concrete overhang and drip edge at the balcony. All loose concrete must be chipped away to expose 1" clear around the steel. The exposed steel shall be cleaned to a bright metal finish with a grinder then protected with a high zinc solid primer such as Galvacon. The concrete profile shall be reinstated with an overhead patching mortar such as Mapei Planitop and once secured, the acrylic stucco finish shall be reapplied (Photos No. 1.7 to 1.9).	SP
1.6	In preparation for the next drop which has known areas of delaminated acrylic stucco finish, SEE has requested Spectrum Painting provide a sample board of the acrylic stucco repair material for texture approval by the Strata Council.	

OBSERVER: per

John Drinkwater, P.Eng.

REVIEWER:

Mark W. Emanuel, P.Eng., Principal

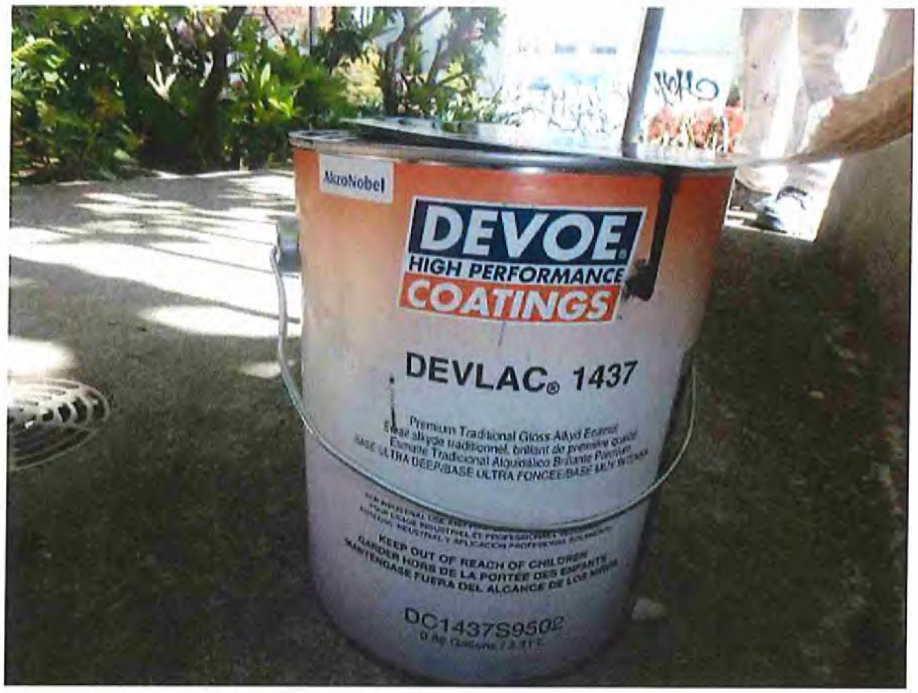
PROFESSIONAL ENGINEER
PROVINCE OF BRITISH COLUMBIA
M.W. EMANUEL
14154

JD / ke

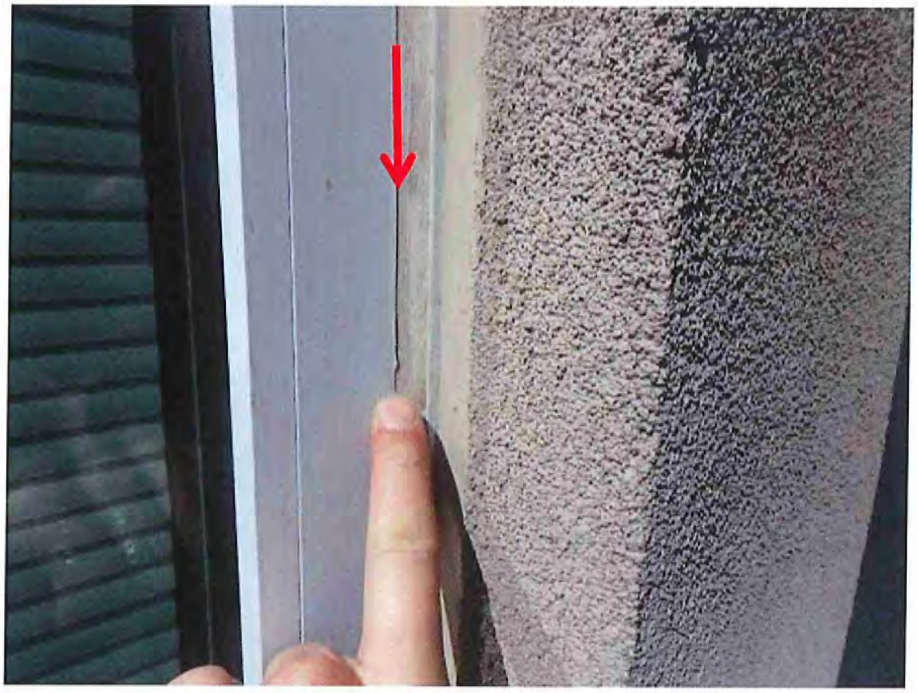
STRATA PLAN LMS 280 - CHATEAU COMOX
1272 COMOX STREET, VANCOUVER, B.C.
PHOTOGRAPHS TAKEN BY JOHN DRINKWATER, P.ENG.
ON MAY 8, 2019

Photos No. 1.1 and 1.2

May 8, 2019



Photos No. 1.3 and 1.4



Photos No. 1.5 and 1.6

May 8, 2019

Photos No. 1.7 and 1.8

Photo No. 1.9

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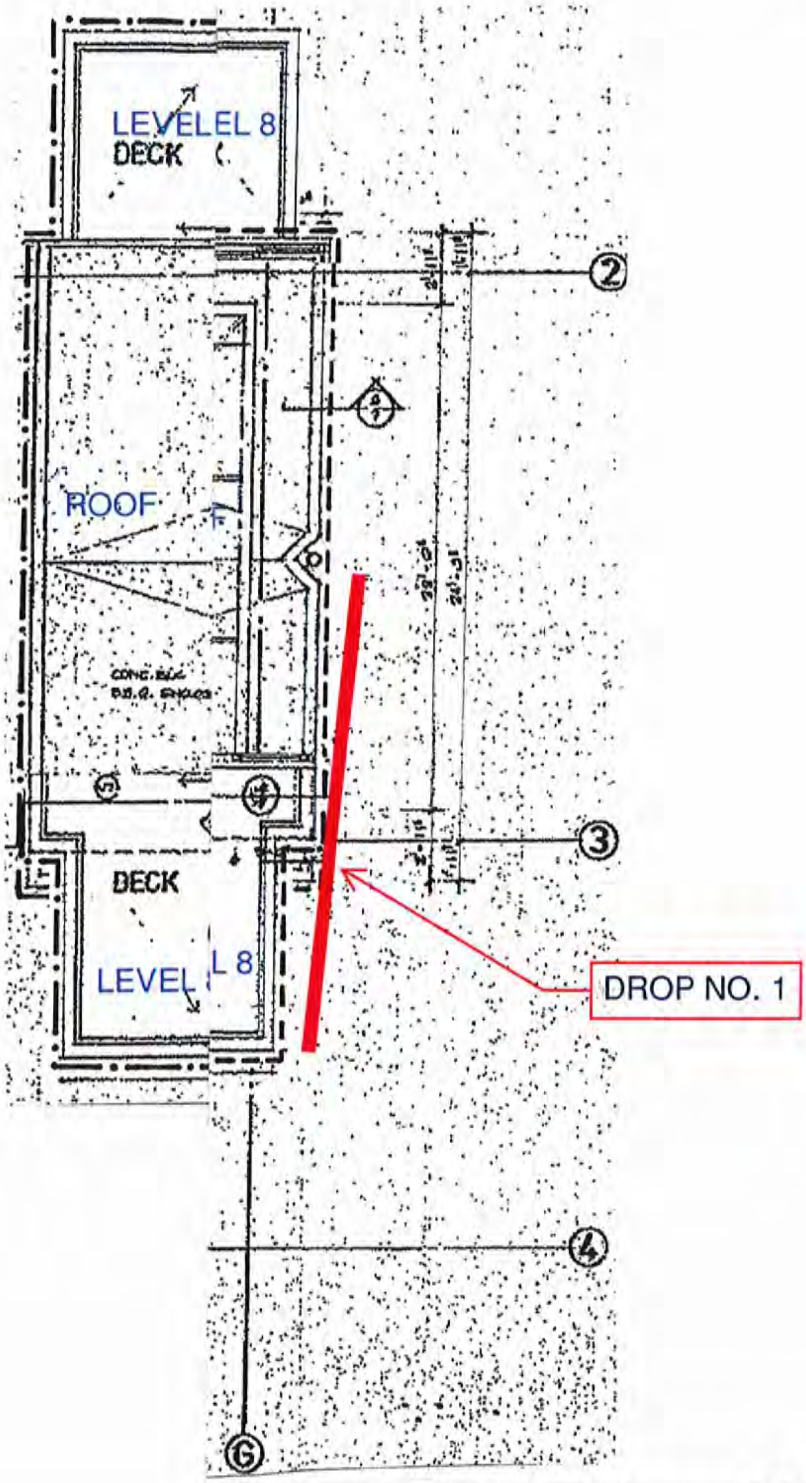
PROJECT NORTH



E MAINTENANCE
I-2019

OP PLAN

DES. J.D.	SCALE N.T.S.	
DR. A.F.	S18-558-B1	
DATE 5/9/2019	SHEET B1	

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OBSERVATION REPORT

Project: **Strata Plan LMS 280 – Chateau Comox**
1272 Comox Street
Vancouver, B.C.

File No. S18-558
Report No. 2
Date: May 14, 2019
Weather: Rain, 12°C

Client: Strata Plan LMS 280 – Chateau Comox
c/o Southview Property Management
110 – 7580 River Road
Richmond, B.C.
V6X 1X6

Attention: Mr. Kevin Green kevingreen@telus.net
Chateau Comox Strata Council chateaucomox@gmail.com
Mr. Chris Clark dcclark333@gmail.com
Mr. Don Davidson dondavidson67@yahoo.ca

Contractor: Spectrum Painting Ltd.
Attention: Mr. Adam Racanelli adam@spectrumpaintingltd.com
Mr. Sam Zukanovic sam@spectrumpaintingltd.com

ITEM: Building Envelope Field Review

Item	Comment	Action By	Date Cleared	Cleared By
2.1	John Drinkwater, P.Eng. of Spratt Emanuel Engineering Ltd. (SEE) attended the above noted development on May 14, 2019 to review completed work on Drop No. 1 located on the north elevation. The following are the observations of the writer while on site (Photo No. 2.1).			
2.2	Application of Dulux Diamond exterior latex paint on the exterior walls is complete with no deficiencies noted. The two-coat application has achieved uniform colour and complete hiding of the base wall colour. As instructed, exterior vertical wall surfaces are semi-gloss and balcony soffits are flat sheen (Photos No. 2.2 to 2.6).			
2.3	The exterior paint has been cut in at the window frame and the existing caulking has been overcoated for uniform colour and appearance throughout (Photos No. 2.7 to 2.9).			
2.4	Balcony guardrails have been recoated with Devoe Devlac 1437 gloss enamel paint. Surface finish is smooth and uniform and full hiding of the original teal has been achieved. Work appears good (Photos No. 2.10 and 2.11).			
2.5	The flagpole will be recoated as part of upcoming Drop No. 2. The flagpole attachment to the building structure is done with a 2-part metal bracket. Spectrum Painting will need to provide white paint to coat the portion of the bracket which is attached to the building. This bracket typically has minor surface rust at edges and corners which should be prepared via light sanding prior to recoating (Photos No. 2.12 to 2.14).			

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OBSERVATION REPORT

2.6 The Contractor has prepared a sample board for Strata approval of the acrylic stucco product which will be used to refinish areas where the existing has debonded (Photo No. 2.15).

PREVIOUS ACTIONABLE ITEMS

Item	Comment	Action By	Date Cleared	Cleared By
1.5	Drop No. 1, Level 8: Rusted steel and minor concrete spalls were uncovered along the concrete overhang and drip edge at the balcony. All loose concrete must be chipped away to expose 1" clear around the steel. The exposed steel shall be cleaned to a bright metal finish with a grinder then protected with a high zinc solid primer such as Galvacon. The concrete profile shall be reinstated with an overhead patching mortar such as Mapei Planitop and once secured, the acrylic stucco finish shall be reapplied (Photos No. 1.7 to 1.9).	SP		

OBSERVER:

John Drinkwater, P.Eng.

PROFESSIONAL ENGINEER
PROVINCE OF BRITISH COLUMBIA
J. E. DRINKWATER
47087

REVIEWER:

Trevor Carman, M.Eng., P.Eng.

PROFESSIONAL ENGINEER
PROVINCE OF BRITISH COLUMBIA
T. J. CARMAN
37578

JD / ch

STRATA PLAN LMS 280 - CHATEAU COMOX
1272 COMOX STREET, VANCOUVER, B.C.
PHOTOGRAPHS TAKEN BY JOHN DRINKWATER, P.ENG.
ON MAY 14, 2019

Photos No. 2.1 and 2.2

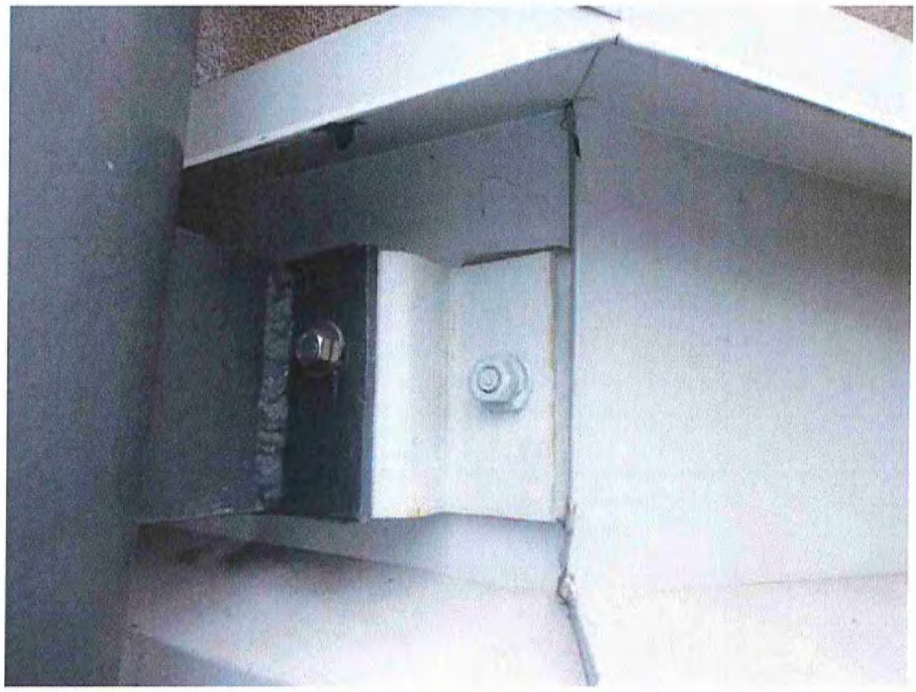
Photos No. 2.3 and 2.4

Photos No. 2.5 and 2.6

Photos No. 2.7 and 2.8

Photos No. 2.9 and 2.10

Photos No. 2.11 and 2.12



Photos No. 2.13 and 2.14

Photo No. 2.15

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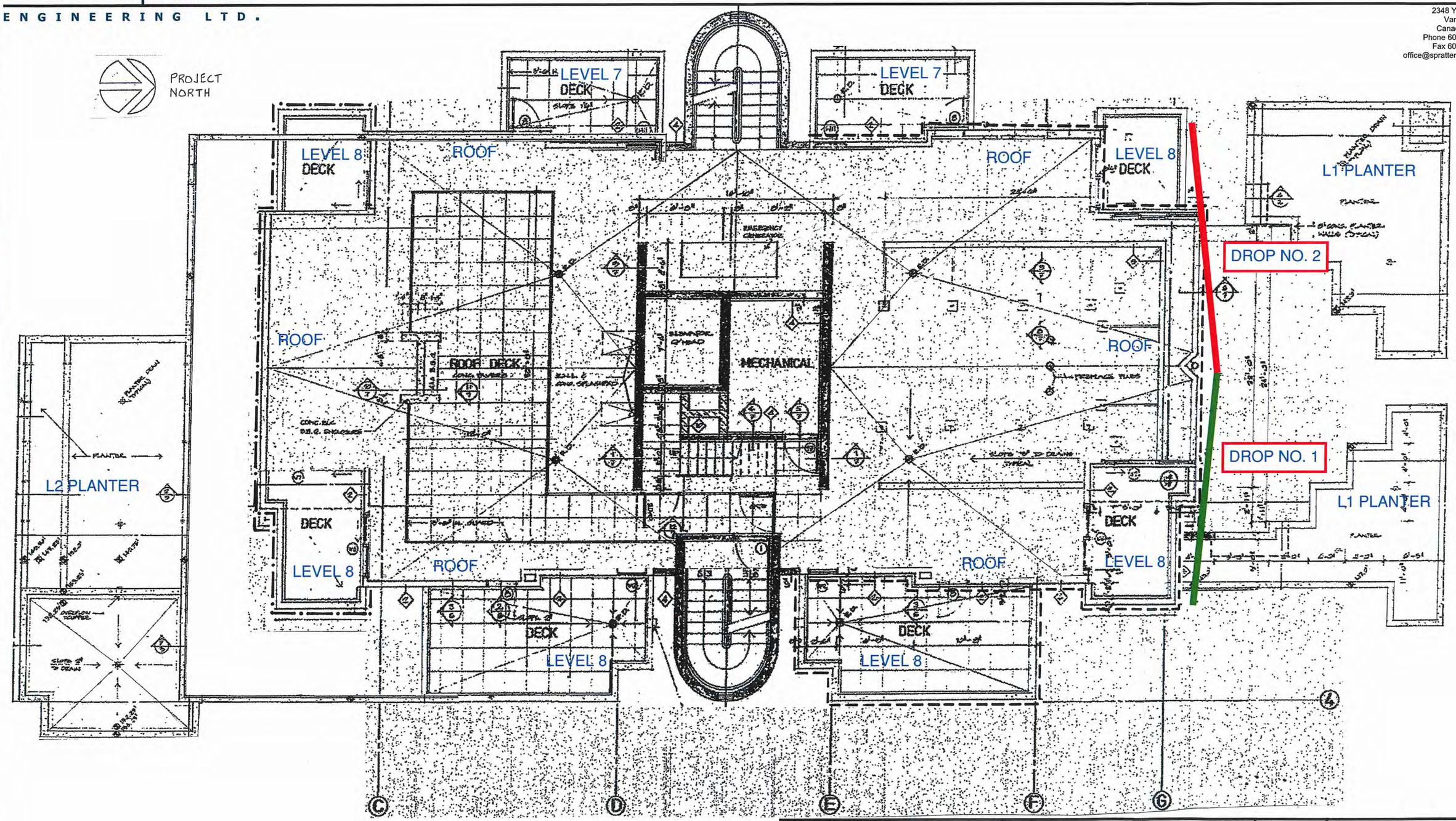

Work in Progress

Completed Work

STRATA PLAN LMS 280 1272 COMOX ST., VANCOUVER, B.C.	BUILDING ENVELOPE MAINTENANCE PROGRAM-2019 BUILDING DROP PLAN	DES. J.D. DR. A.F. DATE 5/9/2019	SCALE N.T.S. S18-558-B1 SHEET B1

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OBSERVATION REPORT

Project: **Strata Plan LMS 280 – Chateau Comox**
1272 Comox Street
Vancouver, B.C.

File No. S18-558
Report No. 3
Date: May 23, 2019
Weather: Sunny, 18°C

Client: Strata Plan LMS 280 – Chateau Comox
c/o Southview Property Management
110 – 7580 River Road
Richmond, B.C.
V6X 1X6

Attention: Mr. Kevin Green — kevingreen@telus.net
Chateau Comox Strata Council — chateaucomox@gmail.com
Mr. Chris Clark — dcclark333@gmail.com
Mr. Don Davidson — dondavidson67@yahoo.ca

Contractor: Spectrum Painting Ltd.
Attention: Mr. Adam Racanelli — adam@spectrumpaintingltd.com
Mr. Sam Zukanovic — sam@spectrumpaintingltd.com

ITEM: Building Envelope Field Review

Item	Comment	Action By	Date Cleared	Cleared By
3.1	John Drinkwater, P.Eng. of Spratt Emanuel Engineering Ltd. (SEE) attended the above noted development on May 23, 2019 to review completed work on Drop No. 2, located on the north elevation. The following are the observations of the writer while on site (Photo No. 3.1).			
3.2	Drop No. 2: The Contractor has applied new Dulux diamond exterior acrylic latex coating to the stucco finished walls with very good workmanship observed. Work on this drop also included painting of the metal flagpole and base supporting plates and northwest corner balconies and guardrails. Good workmanship and high level of finish is observed throughout (Photos No. 3.2 to 3.6).			
3.3	Drop No. 2: At the top floor balcony on this drop, one pane of tempered balcony glass broke during removal. The Contractor shall supply and install a new piece of replacement glass at T&M rates.			
3.4	Drop No. 2: Two acrylic stucco finish patch repairs were done at Levels 3 and 4. The repair patches are an almost identical match for the original finish and are virtually indistinguishable from the surrounding sound material. Workmanship is excellent (Photos No. 3.7 and 3.8).			

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OBSERVATION REPORT

3.5 Work is in progress on the ground floor planter and building walls at the north side main entry. Minor damage and delaminations in the acrylic finish are being repaired with a close match to the original. Tremco polyurethane traffic membrane has been applied as requested to the top horizontal surfaces of the parapets with good workmanship observed. This membrane has been chosen for the parapets as it is suitable for use in a horizontal application, where standard painting products would quickly fail and peel. This project does not have sufficient quantity usage to economically obtain a colour match formula. The closest factory colour to the exterior walls has been selected (Photos No. 3.9 to 3.11).

3.6 Near the top of the fire exit stairwells there is a void in the concrete wall, suspected forming material dating to original construction. This wood is now rotten resulting in a void space. SEE instructed Spectrum Painting to remove the remaining wood, patch with a repair mortar, then recoat the wall as normal (Photo No. 3.12).

PREVIOUS ACTIONABLE ITEMS

Item	Comment	Action By	Date Cleared	Cleared By
1.5	Drop No. 1, Level 8: Rusted steel and minor concrete spalls were uncovered along the concrete overhang and drip edge at the balcony. All loose concrete must be chipped away to expose 1" clear around the steel. The exposed steel shall be cleaned to a bright metal finish with a grinder then protected with a high zinc solid primer such as Galvacon. The concrete profile shall be reinstated with an overhead patching mortar such as Mapei Planitop and once secured, the acrylic stucco finish shall be reapplied (Photos No. 1.7 to 1.9).	SP		

OBSERVER:

John Drinkwater, P.Eng.

PROFESSIONAL ENGINEER
PROVINCE OF BRITISH COLUMBIA
J. E. DRINKWATER
47087

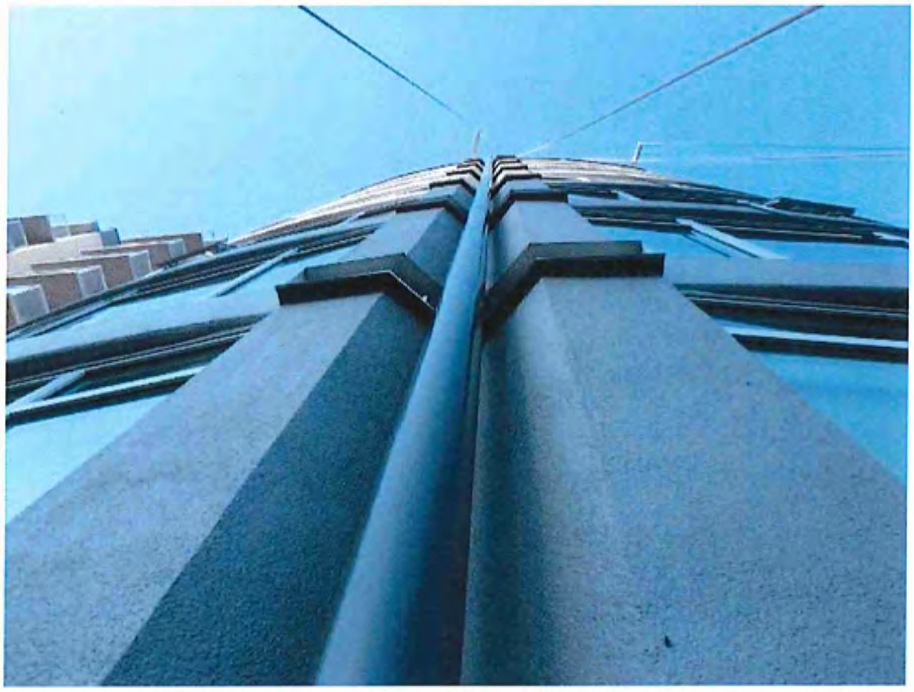
REVIEWER:

Mark W. Emanuel, P.Eng., Principal

JD / ch

STRATA PLAN LMS 280 - CHATEAU COMOX
1272 COMOX STREET, VANCOUVER, B.C.
PHOTOGRAPHS TAKEN BY JOHN DRINKWATER, P.ENG.
ON MAY 23, 2019

Photos No. 3.1 and 3.2



Photos No. 3.3 and 3.4

May 23, 2019

Photos No. 3.5 and 3.6

Photos No. 3.7 and 3.8

Photos No. 3.9 and 3.10

Photos No. 3.11 and 3.12

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OBSERVATION REPORT

Project: **Strata Plan LMS 280 – Chateau Comox**
1272 Comox Street
Vancouver, B.C.

File No. S18-558
Report No. 4
Date: May 31, 2019
Weather: Sun, 20°C

Client: Strata Plan LMS 280 – Chateau Comox
c/o Southview Property Management
110 – 7580 River Road
Richmond, B.C.
V6X 1X6

Attention: Mr. Kevin Green kevingreen@telus.net
Chateau Comox Strata Council chateaucomox@gmail.com
Mr. Chris Clark dcclark333@gmail.com
Mr. Don Davidson dondavidson67@yahoo.ca

Contractor: Spectrum Painting Ltd.
Attention: Mr. Adam Racanelli adam@spectrumpaintingltd.com
Mr. Sam Zukanovic sam@spectrumpaintingltd.com

ITEM: Building Envelope Field Review

Item	Comment	Action By	Date Cleared	Cleared By
4.1	The writer attended Chateau Comox on May 31, 2019 to meet with the representative from Spectrum Painting to investigate a problem with the existing caulking detail on the metal window frames. The following are the observations of the writer while on site.			
4.2	A caulking detail was inspected on a metal framed swing door on the ground floor off the amenity room. The existing caulking was applied to the stucco and frame as a bridge across the rainscreen cavity; however, the underlying peel and stick membrane was also caulked. Removal of existing caulking will likely damage the edge of the membrane, which must be preserved. The gap between the stucco and frame is approximately 1.5". SEE has instructed Spectrum Painting to cease removal of existing caulking to prevent damage (Photos No. 4.1 to 4.3).			
4.3	SEE discussed a metal flashing detail to replace the existing caulking; however, there is no way to mechanically fasten the flashing. The other solution is to use Dow Corning 123 Silicone Seal to bridge the gap. SEE requests Spectrum Painting produce a mock-up for further review.			

SPRATT EMANUEL
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Phone 604 872-1211
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OBSERVATION REPORT

PREVIOUS ACTIONABLE ITEMS

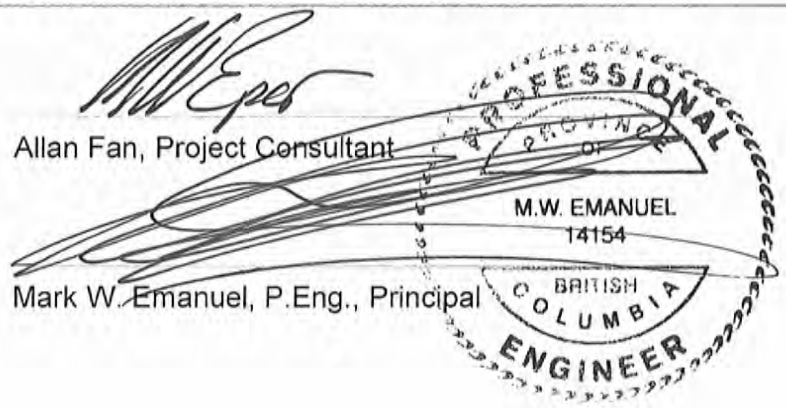
Item	Comment	Action By	Date Cleared	Cleared By
1.5	Drop No. 1, Level 8: Rusted steel and minor concrete spalls were uncovered along the concrete overhang and drip edge at the balcony. All loose concrete must be chipped away to expose 1" clear around the steel. The exposed steel shall be cleaned to a bright metal finish with a grinder then protected with a high zinc solid primer such as Galvacon. The concrete profile shall be reinstated with an overhead patching mortar such as Mapei Planitop and once secured, the acrylic stucco finish shall be reapplied (Photos No. 1.7 to 1.9).	SP		

OBSERVER:

Allan Fan, Project Consultant

REVIEWER:

Mark W. Emanuel, P.Eng., Principal



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STRATA PLAN LMS 280 - CHATEAU COMOX
1272 COMOX STREET, VANCOUVER, B.C.
PHOTOGRAPHS TAKEN BY ALLAN FAN, PROJECT CONSULTANT
ON MAY 31, 2019

Photos No. 4.1 and 4.2

Photo No. 4.3

SE | SPRATT EMANUEL
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OBSERVATION REPORT

Project: **Strata Plan LMS 280 – Chateau Comox**
1272 Comox Street
Vancouver, B.C.

File No. S18-558
Report No. 5
Date: Jun 03, 2019
Weather: Sunny, 20°C

Client: Strata Plan LMS 280 – Chateau Comox
c/o Southview Property Management
110 – 7580 River Road
Richmond, B.C.
V6X 1X6

Attention: Mr. Kevin Green — kevingreen@telus.net
Chateau Comox Strata Council — chateaucomox@gmail.com
Mr. Chris Clark — dcclark333@gmail.com
Mr. Don Davidson — dondavidson67@yahoo.ca

Contractor: Spectrum Painting Ltd.
Attention: Mr. Adam Racanelli — adam@spectrumpaintingltd.com
Mr. Sam Zukanovic — sam@spectrumpaintingltd.com

ITEM: Building Envelope Field Review

Item	Comment	Action By	Date Cleared	Cleared By
5.1	John Drinkwater, P.Eng. of Spratt Emanuel Engineering Ltd. (SEE) attended the above noted development on June 3, 2019 to conduct a building envelope field review. The following are the observations of the writer while on site.			
5.2	As requested, Spectrum Painting Ltd. has prepared a sample installation of Dow Corning 123 silicone seal in lieu of caulking replacement at the ground floor amenity room door. The pre-cured silicone tape is installed with two beads of caulking, one placed over the galvanized J-bead of the stucco and the second on the door frame. The 123 Tape and silicone caulking are neatly installed with no significant wrinkles or bulges (Photos No. 5.1 to 5.4).			
5.3	The existing caulking bead is left in place and will serve as mechanical support for the 123 Tape. Minor trimming of the caulking bead was done to accommodate installation of the 123 Tape. This was done without causing damage to the underlying Blueskin peel-and-stick membrane (Photo No. 5.5).			
5.4	SEE has accepted the installation. Spectrum Painting shall supply and install 123 Tape in the factory colour closest matching the wall paint. Once installed the 123 Tape shall be overcoated with two coats of Dow Corning AllGuard tinted to the building colour.			
5.5	Painting work on Drop No. 3 is substantially complete and at the time of review the Contractor was beginning work on Drop No. 4. SEE will perform a complete review of Drops No. 3 and 4 when Drop no. 4 is complete. Elsewhere on the project, painting is substantially complete at the ground floor planters around the front entry with excellent workmanship observed (Photos No. 5.6 to 5.8).			

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OBSERVATION REPORT

PREVIOUS ACTIONABLE ITEMS

Item	Comment	Action By	Date Cleared	Cleared By
1.5	Drop No. 1, Level 8: Rusted steel and minor concrete spalls were uncovered along the concrete overhang and drip edge at the balcony. All loose concrete must be chipped away to expose 1" clear around the steel. The exposed steel shall be cleaned to a bright metal finish with a grinder then protected with a high zinc solid primer such as Galvacon. The concrete profile shall be reinstated with an overhead patching mortar such as Mapei Planitop and once secured, the acrylic stucco finish shall be reapplied (Photos No. 1.7 to 1.9).	SP		

OBSERVER:

John Drinkwater, P.Eng.

PROFESSIONAL ENGINEER
PROVINCE OF BRITISH COLUMBIA
J. E. DRINKWATER
47087

REVIEWER:

Mark W. Emanuel, P.Eng., Principal

JD / ch

STRATA PLAN LMS 280 - CHATEAU COMOX
1272 COMOX STREET, VANCOUVER, B.C.
PHOTOGRAPHS TAKEN BY JOHN DRINKWATER, P.ENG.
ON JUNE 3, 2019

Photos No. 5.1 and 5.2

Photos No. 5.3 and 5.4

Photos No. 5.5 and 5.6

June 3, 2019

Photos No. 5.7 and 5.8

SE | SPRATT EMANUEL
ENGINEERING LTD.

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OBSERVATION REPORT

Project: **Strata Plan LMS 280 – Chateau Comox**
1272 Comox Street
Vancouver, B.C.

File No. S18-558
Report No. 6
Date: Jun 14, 2019
Weather: Overcast, 17°C

Client: Strata Plan LMS 280 – Chateau Comox
c/o Southview Property Management
110 – 7580 River Road
Richmond, B.C.
V6X 1X6

Attention:	Mr. Kevin Green	kevingreen@telus.net
	Chateau Comox Strata Council	chateaucomox@gmail.com
	Mr. Chris Clark	dcclark333@gmail.com
	Mr. Don Davidson	dondavidson67@yahoo.ca
Contractor:	Spectrum Painting Ltd.	
Attention:	Mr. Adam Racanelli	adam@spectrumpaintingltd.com
	Mr. Sam Zukanovic	sam@spectrumpaintingltd.com

ITEM: Building Envelope Field Review

Item	Comment	Action By	Date Cleared	Cleared By
6.1	John Drinkwater, P.Eng. of Spratt Emanuel Engineering Ltd. (SEE) attended the above noted development on June 14, 2019 to conduct a building envelope field review. The following are the observations of the writer.			
6.2	Drop No. 4: Total extra work on this drop includes 45' of new silicone 123 Tape, 1 sq.ft. of concrete spall repair, 18 sq.ft. of acrylic stucco patching, and T&M sheet metal repairs and flashing painting at the Unit No. 701 west deck.			
6.3	Unit No. 701: The owner provided access to his left deck, allowing review of the completed painting and caulking work at the exterior. As requested, Dow Corning 123 Tape has been installed jambed up the windows and doors. The right hand jamb up deck level window requires rework with 123 Tape as edges are not fully adhered (Photos No. 6.1 and 6.2).			

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ENGINEERING LTD.

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OBSERVATION REPORT

6.4	Unit No. 701: Extra work at the west deck and at the Level 8 windows above includes six window jambs with 123 Tape at 5'6" each, and one door with 6' jambs (Photos No. 6.3 to 6.5).	
6.5	Unit No. 701: The roof deck parapet cap flashing and through-wall flashings have rust which should be recoated. SEE instructed Spectrum Painting to clean and repaint two through-wall flashings on the building's west elevation as well as the balcony parapet cap flashings. The corners of the through-wall flashings were originally constructed with soldered joints which have cracked. SEE instructed Spectrum Painting to repair the flashing by installing a back-caulked sheet metal repair secured with stainless steel rivets over the broken joints (Photos No. 6.6 to 6.8).	
6.6	Drop No. 3: A total of five north-facing windows were resealed at the jambs with new 123 Tape. Each jamb measures 6'6" long. Additionally, the ground floor amenity room was sealed in a similar manner, measuring 7'6" each jamb (Photo No. 6.9).	
6.7	Drops No. 3 and 4: SEE reviewed completed work on Drops No. 3 and 4 from the Drop No. 4 swing stage. Work is completed to a good standard (Photos No. 6.10 to 6.12).	
6.8	Drop No. 4: At the bottom of the barrel wall on the north face, there are three locations of exposed steel rebar of the concrete structure. At two locations on the wall face, SEE instructed the contractor to clean the steel to a bright metal finish, prime with a zinc rich primer then apply a patch of polyurethane sealant over and recoat with paint. The third spall located at the drip edge at the base of the barrel wall requires full concrete repair treatment. The concrete should be chipped away from the rusted steel to expose a minimum of 1" all sides. The steel should be cleaned to a bright finish and zinc rich primed, then new overhead concrete patching mortar shall be formed in place. Once secured, the concrete patch can be primed, new acrylic stucco finish laid overtop, and painted to match the walls (Photos No. 6.13 and 6.14).	SP
6.9	Approximately 18 sq.ft. of acrylic stucco repairs were done on the walls of the ground floor planters at the building entry. An additional 2 sq.ft. were done on Drop No. 2. Work is complete to a good standard with a close match to the existing finish (Photos No. 6.15 and 6.16).	

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OBSERVATION REPORT

6.10 SEE has attached an extra work tracking sheet to this report. It will be updated and maintained as work is completed on the project.

PREVIOUS ACTIONABLE ITEMS

Item	Comment	Action By	Date Cleared	Cleared By
1.5	Drop No. 1, Level 8: Rusted steel and minor concrete spalls were uncovered along the concrete overhang and drip edge at the balcony. All loose concrete must be chipped away to expose 1" clear around the steel. The exposed steel shall be cleaned to a bright metal finish with a grinder then protected with a high zinc solid primer such as Galvacon. The concrete profile shall be reinstated with an overhead patching mortar such as Mapei Planitop and once secured, the acrylic stucco finish shall be reapplied (Photos No. 1.7 to 1.9).	SP		

OBSERVER:

John Drinkwater, P.Eng.

PROFESSIONAL ENGINEER
PROVINCE OF BRITISH COLUMBIA
J. E. DRINKWATER
47087

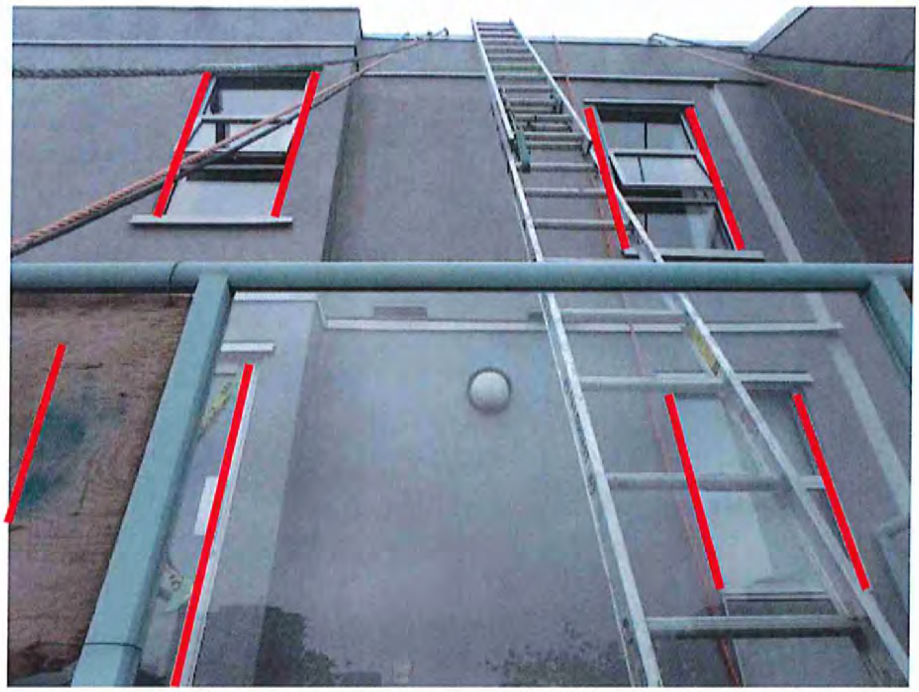
REVIEWER:

Mark W. Emanuel, P.Eng., Principal

JD / ke

STRATA PLAN LMS 280 - CHATEAU COMOX
1272 COMOX STREET, VANCOUVER, B.C.
PHOTOGRAPHS TAKEN BY JOHN DRINKWATER, P.ENG.
ON JUNE 14, 2019

Photos No. 6.1 and 6.2



Photos No. 6.3 and 6.4

Photos No. 6.5 and 6.6

June 14, 2019

Photos No. 6.7 and 6.8

Photos No. 6.9 and 6.10

Photos No. 6.11 and 6.12

June 14, 2019

Photos No. 6.13 and 6.14

Photos No. 6.15 and 6.16

SPRATT EMANUEL ENGINEERING LTD.
Our File No.: S18-558
June 18, 2019

Strata Plan LMS 280 - Chateau Comox
1272 Comox Street, Vancouver, B.C.
Building Envelope Maintenance Project – 2019

Summary of Work Completed at Unit Rates

Total of Progress Draw No.	Drop No. or Suite No.	Observation Report No.	Date Complete	Silicone 123 Tape (Ft.)	Rout and Caulk (Ft.)	Acrylic Stucco Patching (Sq. Ft.)	Concrete Spall Repair (Sq. Ft.)	T&M Repairs	Extra Painting
Items In Progress	**Drop No. 1**	1	Work In Process	0	0	0	1	0	0
	Unit 701	6	Work In Process	0	0	0	1	1	1
Total Items In Progress				**0**	**0**	**0**	**2**	**1**	**1**
Draw No. 2 - June, 2019	**Drop No. 2**	6	June 14, 2019	0	0	2	0	0	0
	Drop No. 3	6	June 14, 2019	80	0	0	0	0	0
	Planters	6	June 14, 2019	0	0	18	0	0	0
	Unit 701	6	June 14, 2019	45	0	0	0	0	0
Total Draw No. 2 - June, 2019				**125**	**0**	**20**	**0**	**0**	**0**
Grand Total				**125**	**0**	**20**	**2**	**1**	**1**

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OBSERVATION REPORT

Project: **Strata Plan LMS 280 – Chateau Comox**
1272 Comox Street
Vancouver, B.C.

File No. S18-558
Report No. 7
Date: Jul 04, 2019
Weather: Overcast, 16°C

Client: Strata Plan LMS 280 – Chateau Comox
c/o Southview Property Management
110 – 7580 River Road
Richmond, B.C. V6X 1X6

Attention:	Mr. Kevin Green	kevingreen@telus.net
	Chateau Comox Strata Council	chateaucomox@gmail.com
	Mr. Chris Clark	dcclark333@gmail.com
	Mr. Don Davidson	dondavidson67@yahoo.ca
	Mr. Kevin Wice	krw@krw.ca

Contractor: Spectrum Painting Ltd.

Attention:	Mr. Adam Racanelli	adam@spectrumpaintingltd.com
	Mr. Sam Zukanovic	sam@spectrumpaintingltd.com

ITEM: Building Envelope Field Review

Item	Comment	Action By	Date Cleared	Cleared By
7.1	John Drinkwater, P.Eng. of Spratt Emanuel Engineering Ltd. (SEE) attended the above noted development on July 4, 2019 to conduct a building envelope field review. The following are the observations of the writer while on site.			
7.2	SEE reviewed completed work on Drops No. 4 and 5 with good workmanship observed. On Drop No. 5, a total of 100' of silicone 123 Tape has been installed at window and door jambs. These locations are within the re-caulking cope of work, caulking removal not required is credited at $15 per lineal foot per Appendix B to Bid, and extra silicone 123 Tape installation at $20 per lineal foot is substituted for a net extra of $5 per lineal foot in these work areas (Photos No. 7.1 to 7.3).			
7.3	At the Level 7 west balcony, Spectrum Painting has repainted rusted metal flashings, terminating at seams or joints neatly. Work appears good. SEE requested that the inside corner through-wall flashings also be repainted to address rusting which is occurring at the soldered joints (Photos No. 7.4 and 7.5).			

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OBSERVATION REPORT

7.4	At the southwest corner of the building, four of the balconies have exposed concrete with painted top horizontal surfaces. SEE recommends these balconies be recoated with polyurethane traffic membrane. SEE is submitting a Change Directive for pricing from the contractor under separate cover (Photo No. 7.6).	
7.5	Drop No. 5, Level 4: Spalled concrete and rusted steel reinforcement on the balcony parapet require repair by chipping and patching (Photo No. 7.7).	SP
7.6	Drop No. 5, Level 5: There are two instances of rusted reinforcing steel on the west face of the balcony. The steel reinforcement on the parapet upstand must be exposed with 1" clear space all around by chipping to remove the surrounding concrete. Concrete patching mortar followed by reapplication of new acrylic stucco finish shall follow. At the balcony soffit, the spalling due to rebar ends shall be repaired by patching, applying new acrylic finish, and repainting (Photos No. 7.8 to 7.10).	SP
7.7	SEE instructed Spectrum to paint the inside corner through-wall flashing joint which is beginning to rust (Photos No. 7.11 and 7.12).	
7.8	Spectrum Painting propose using BASF MasterEmaco N425 concrete patching mortar. This is an exterior grade vertical and overhead product with corrosion inhibitors, appropriate for use on the concrete spall repairs.	

PREVIOUS ACTIONABLE ITEMS

Item	Comment	Action By	Date Cleared	Cleared By
1.5	Drop No. 1, Level 8: Rusted steel and minor concrete spalls were uncovered along the concrete overhang and drip edge at the balcony. All loose concrete must be chipped away to expose 1" clear around the steel. The exposed steel shall be cleaned to a bright metal finish with a grinder then protected with a high zinc solid primer such as Galvacon. The concrete profile shall be reinstated with an overhead patching mortar such as Mapei Planitop and once secured, the acrylic stucco finish shall be reapplied (Photos No. 1.7 to 1.9).	SP		

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OBSERVATION REPORT

6.8 Drop No. 4: At the bottom of the barrel wall on the north face, there are three locations of exposed steel rebar of the concrete structure. At two locations on the wall face, SEE instructed the contractor to clean the steel to a bright metal finish, prime with a zinc rich primer then apply a patch of polyurethane sealant over and recoat with paint. The third spall located at the drip edge at the base of the barrel wall requires full concrete repair treatment. The concrete should be chipped away from the rusted steel to expose a minimum of 1" all sides. The steel should be cleaned to a bright finish and zinc rich primed, then new overhead concrete patching mortar shall be formed in place. Once secured, the concrete patch can be primed, new acrylic stucco finish laid overtop, and painted to match the walls (Photos No. 6.13 and 6.14). SP

OBSERVER:

John Drinkwater, P.Eng.

PROFESSIONAL ENGINEER
PROVINCE OF BRITISH COLUMBIA
J. E. DRINKWATER
47087

REVIEWER:

Mark W. Emanuel, P.Eng., Principal

JD / ke

STRATA PLAN LMS 280 - CHATEAU COMOX
1272 COMOX STREET, VANCOUVER, B.C.
PHOTOGRAPHS TAKEN BY JOHN DRINKWATER, P.ENG.
ON JULY 4, 2019

Photos No. 7.1 and 7.2

July 4, 2019

Photos No. 7.3 and 7.4

Photos No. 7.5 and 7.6

July 4, 2019

Photos No. 7.7 and 7.8

Photos No. 7.9 and 7.10

Photos No. 7.11 and 7.12

BASF

We create chemistry

Technical Data Guide

3 | 03 01 00
Maintenance of Concrete

MasterEmaco® N 425

Non-sag concrete repair mortar with integral corrosion inhibitor for vertical and overhead applications

FORMERLY GEL PATCH

PACKAGING
43 lb (19.5 kg) polyethylene-lined bags

YIELD
0.43 ft³ per 43 lb bag
(0.012 m³/19.5 kg)

STORAGE
Store in unopened containers in a cool, clean, dry area

SHELF LIFE
12 months when properly stored

VOC CONTENT
0 g/L less water and exempt solvents

DESCRIPTION
MasterEmaco N 425 is a trowel-grade, lightweight, polymer-modified, silica fume-enhanced repair mortar with an integral corrosion inhibitor.

PRODUCT HIGHLIGHTS
- Non-sag consistency able to be placed in 2" (51 mm) thick lifts
- Readily sculpted, shaved, and finished to match existing substrate
- Very low chloride permeability and an integral corrosion inhibitor protects reinforcing steel
- Only requires the addition of potable water
- Low shrinkage produces stable, durable bond
- Lightweight microscopic beads improve vertical and overhead workability
- Polymer modification improves adhesion and provides increased freeze/thaw stability

APPLICATIONS
- Interior and exterior
- Vertical and overhead
- Above and below grade
- Spalls or holes in concrete
- Deteriorated edges

SUBSTRATES
- Concrete
- Masonry
- Structural Concrete

HOW TO APPLY

SURFACE PREPARATION
1. Substrate must be structurally sound and fully cured (28 days).
2. Saw cut the perimeter of the area being repaired into a square with a minimum depth of ¼" (6 mm).
3. The surface to be repaired must be clean, free of laitance and saturated surface-dry (SSD) following ICRI Guideline no. 310.2 to permit proper bond.

REINFORCING STEEL
1. Remove all oxidation and scale from the exposed reinforcing steel in accordance with ICRI Technical Guideline No. 310.1R.
2. For additional protection from future corrosion, coat the prepared reinforcing steel with MasterProtect P 8100 AP.

Technical Data

Composition

MasterEmaco N 425 is composed of crystalline (quartz) silica and Portland cement.

Typical Properties

PROPERTY	VALUE
Working time, min at 70° F (21° C)	20–30

Test Data

PROPERTY	RESULTS	TEST METHODS
Compressive strength, psi (MPa)		ASTM C 109, modified*
1 day	2,150 (14.8)	
7 days	5,600 (38.6)	
28 days	6,750 (46.5)	
Modulus of elasticity, psi (MPa)	5.6×10^5 (3,861)	ASTM C 215
Splitting tensile strength, psi (MPa)		ASTM C 496, modified* (wet cure)
1 day	310 (2.1)	
7 days	560 (3.9)	
28 days	610 (4.2)	
Flexural strength, psi (MPa)		ASTM C 348, modified*
1 day	500 (3.4)	
7 days	800 (5.5)	
28 days	1,110 (7.7)	
Bond strength, psi (MPa)		ASTM C 882, modified* (mortar scrubbed into substrate)
1 day	900 (6.2)	
7 days	1,900 (13.1)	
28 days	2,450 (16.9)	
Water absorption, %, 28 days	4	ASTM C 642
Chloride permeability, coulombs	Very low range	AASHTO T-277 (According to ASTM C 1202, table 1)
Length change, %, in/in, wet cure		ASTM C 157
1 day	+0.019	
7 days	+0.028	
28 day	+0.034	
Length change, %, in/in, dry cure*		ASTM C 157
1 day	–0.026	
7 days	–0.11	
28 days	–0.15	
Linear coefficient of thermal expansion, in/in/° F	5.3×10^{-6}	ASTM C 531
Freeze / Thaw Resistance, % RDM	98.8%	ASTM C 666 A
Scaling Resistance, lbs/ft² (kg/m²) 50 Cycles	0.0 (0.0) No Scaling	ASTM C 672

*At 50% relative humidity

Test results are averages obtained under laboratory conditions. Reasonable variations can be expected.

MIXING

1. Precondition material to 70° F ±5° (21° C ±3°) before mixing.
2. Mechanically mix at slow speed with a ¾" drill and mixing paddle.
3. Add approximately 2¾ quarts (2.6 L) of potable water into a clean mixing container. Gradually sift in powder ⅓ at a time while mixing continuously at slow speed (high speeds may entrain air). Mix for a minimum of 3 minutes to ensure a uniform, lump-free consistency. Do not exceed a total of 3 quarts (2.8 L) of mixing water per 43 lb (19.8 kg) bag.

APPLICATION

1. Dampen the surface with potable water; it must be saturated surface-dry (SSD) with no standing water.
2. With a gloved hand, scrub a small quantity of mixed material into the SSD substrate. Thoroughly key in and work the material throughout the cavity to promote bond. Do not apply more of the bond coat than can be covered with mortar before the bond coat dries.
3. Apply material in lifts of ¼–2" (6–51 mm). Avoid featheredging. For optimum mechanical bond on successive lifts, thoroughly score each lift and allow to reach initial set before the next layer is applied. Placement time is 20–30 minutes at 70° F (21° C) and 50% relative humidity.
4. Trowel, shave or shape material to the desired finish after initial set.
5. The recommended application range of MasterEmaco N 425 is from 40 to 90° F (4 to 32° C). Follow ACI 305 and 306 for hot or cold weather guidelines.

CURING

Cure with an approved water based curing compound compliant with ASTM C 309 or preferably ASTM C 1315. If the repair area will receive a coating, wet curing is recommended.

CLEAN UP

Clean tools and equipment with clean water immediately after use. Cured material must be removed mechanically.

FOR BEST PERFORMANCE

- Do not bridge moving cracks or joints.
- Do not overwork material
- Do not add plasticizers, accelerators, retarders, or other additives.
- Do not extend with aggregate.
- Bonding agents are recommended for large areas as well as permanently damp areas.
- Protect from freezing for 24 hours after application.
- For professional use only; not for sale to or use by the general public.
- Make certain the most current versions of product data sheet and SDS are being used; visit www.master-builders-solutions.BASF.us to verify the most current versions.
- Proper application is the responsibility of the user. Field visits by BASF personnel are for the purpose of making technical recommendations only and not for supervising or providing quality control on the jobsite.

HEALTH, SAFETY AND ENVIRONMENTAL

Read, understand and follow all Safety Data Sheets and product label information for this product prior to use. The SDS can be obtained by visiting www.master-builders-solutions.basf.us, e-mailing your request to basfbscst@basf.com or calling 1(800)433-9517. Use only as directed. **For medical emergencies only, call ChemTrec® 1(800)424-9300.**

LIMITED WARRANTY NOTICE

BASF warrants this product to be free from manufacturing defects and to meet the technical properties on the current Technical Data Guide, if used as directed within shelf life. Satisfactory results depend not only on quality products but also upon many factors beyond our control. BASF MAKES NO OTHER WARRANTY OR GUARANTEE, EXPRESS OR IMPLIED, INCLUDING WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE WITH RESPECT TO ITS PRODUCTS. The sole and exclusive remedy of Purchaser for any claim concerning this product, including but not limited to, claims alleging breach of warranty, negligence, strict liability or otherwise, is the replacement of product or refund of the purchase price, at the sole option of BASF. Any claims concerning this product must be received in writing within one (1) year from the date of shipment and any claims not presented within that period are waived by Purchaser. BASF WILL NOT BE RESPONSIBLE FOR ANY SPECIAL, INCIDENTAL, CONSEQUENTIAL (INCLUDING LOST PROFITS) OR PUNITIVE DAMAGES OF ANY KIND.

Purchaser must determine the suitability of the products for the intended use and assumes all risks and liabilities in connection therewith. This information and all further technical advice are based on BASF's present knowledge and experience. However, BASF assumes no liability for providing such information and advice including the extent to which such information and advice may relate to existing third party intellectual property rights, especially patent rights, nor shall any legal relationship be created by or arise from the provision of such information and advice. BASF reserves the right to make any changes according to technological progress or further developments. The Purchaser of the Product(s) must test the product(s) for suitability for the intended application and purpose before proceeding with a full application of the product(s). Performance of the product described herein should be verified by testing and carried out by qualified experts.

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OBSERVATION REPORT

Project: **Strata Plan LMS 280 – Chateau Comox**
1272 Comox Street
Vancouver, B.C.

File No. S18-558
Report No. 8
Date: Jul 30, 2019
Weather: Overcast, 16°C

Client: Strata Plan LMS 280 – Chateau Comox
c/o Southview Property Management
110 – 7580 River Road
Richmond, B.C. V6X 1X6

Attention:	Mr. Kevin Green	kevingreen@telus.net
	Chateau Comox Strata Council	chateaucomox@gmail.com
	Mr. Chris Clark	dcclark333@gmail.com
	Mr. Don Davidson	dondavidson67@yahoo.ca
	Mr. Kevin Wice	krw@krw.ca
Contractor:	Spectrum Painting Ltd.	
Attention:	Mr. Adam Racanelli	adam@spectrumpaintingltd.com
	Mr. Sam Zukanovic	sam@spectrumpaintingltd.com

ITEM: Building Envelope Field Review

Item	Comment	Action By	Date Cleared	Cleared By
8.1	John Drinkwater, P.Eng. of Spratt Emanuel Engineering Ltd. (SEE) attended the above noted development on July 30, 2019 to conduct a building envelope field review. The following are the observations of the writer while on site.			
8.2	Painting and caulking work is substantially complete on the west half of the south elevation. The Dow Corning AllGuard silicone elastomeric coating has been applied to the exterior wall surfaces with good finish observed. At the time of review, the swing stage set up was being moved to cover the east half of the elevation so access was not immediately available. Detailed review will be conducted after the new swing stage set up is complete (Photo No. 8.1).			
8.3	Work is continuing on the southwest corner balconies where new polyurethane traffic membrane is being installed. At the lower balconies, very good workmanship is observed. The membrane is applied to sufficient thickness and the broadcast sand is evenly distributed and back rolled into the top coat has required. Traffic membrane has been extended up the inside face of the parapet walls and onto the top surface of the parapet as requested (Photos No. 8.2 and 8.3).			

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OBSERVATION REPORT

8.4 At one balcony only, the polyurethane traffic membrane application showed signs of delamination – blisters and pock marks in the finished surface. SEE conducted a small cut test which revealed a significant issue with concrete dusting on the existing balcony slab. Additional cut tests were done which showed the concrete dusting issue to be wide spread on this balcony. Unfortunately, the newly applied membrane on the balcony horizontal surface must be peeled off to expose the bare concrete slab. At the perimeter edges, and any location where tenaciously adhered membrane is discovered, the surface of the remaining membrane should be lightly touched with a grinder to provide a feathered edge into the bare concrete. After removal, the entire concrete surface must be heavily power washed, possibly with multiple passes until the entire weak layer of concrete on the top surface of the slab has been removed. We recommend testing during power washing with a scraper or stiff bristle brush – any areas which produce muddy water must receive further power washing until scraping or rubbing the bare concrete surface produces no residue.

8.5 After washing is complete, the deck must be allowed several days to dry. We recommend an adhesion test be performed on a small area of the deck, 6" wide by 12" long to confirm the surface prep procedures successfully removed all weak dusting concrete. In the test patch, embed scrim cloth within a standard application of membrane base coat and allow to dry. Please notify SEE in advance so that we can witness the pull off and confirm adhesion of the base coat is satisfactory.

8.6 After successfully completing the adhesion test, new base coat membrane should be applied to the bare concrete areas, feathered into the existing membrane application. New top coat shall be applied to the entire horizontal surface of the deck. All locations of existing membrane must be prepared with a heavy solvent wipe of xylene to ensure a good bond with the new top coat.

8.7 At the southwest ground floor deck, planter walls are painted and horizontal surfaces have been prepared with new polyurethane traffic membrane. Work appears very good. In multiple locations on the planter and building walls, the contractor has removed failed acrylic stucco and applied new with an excellent match to the existing texture (Photos No. 8.6 to 8.8).

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OBSERVATION REPORT

8.8 On the south elevation drop, numerous concrete repairs were required due to reinforcing steel with insufficient concrete cover. The steel began to rust resulting in spalling concrete. The contractor has been making repairs at the direction of SEE with their progress photos attached to this item (Photos No. 8.9 to 8.18).

8.9 On the west elevation at the side yard walkway the walls have been painted with good finish observed. Many rout and caulk repairs have been completed in the exterior concrete walls (Photo No. 8.19).

PREVIOUS ACTIONABLE ITEMS

Item	Comment	Action By	Date Cleared	Cleared By
1.5	Drop No. 1, Level 8: Rusted steel and minor concrete spalls were uncovered along the concrete overhang and drip edge at the balcony. All loose concrete must be chipped away to expose 1" clear around the steel. The exposed steel shall be cleaned to a bright metal finish with a grinder then protected with a high zinc solid primer such as Galvacon. The concrete profile shall be reinstated with an overhead patching mortar such as Mapei Planitop and once secured, the acrylic stucco finish shall be reapplied (Photos No. 1.7 to 1.9).	SP		
6.8	Drop No. 4: At the bottom of the barrel wall on the north face, there are three locations of exposed steel rebar of the concrete structure. At two locations on the wall face, SEE instructed the contractor to clean the steel to a bright metal finish, prime with a zinc rich primer then apply a patch of polyurethane sealant over and recoat with paint. The third spall located at the drip edge at the base of the barrel wall requires full concrete repair treatment. The concrete should be chipped away from the rusted steel to expose a minimum of 1" all sides. The steel should be cleaned to a bright finish and zinc rich primed, then new overhead concrete patching mortar shall be formed in place. Once secured, the concrete patch can be primed, new acrylic stucco finish laid overtop, and painted to match the walls (Photos No. 6.13 and 6.14).	SP		
7.5	Drop No. 5, Level 4: Spalled concrete and rusted steel reinforcement on the balcony parapet require repair by chipping and patching (Photo No. 7.7).	SP		

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OBSERVATION REPORT

7.6 Drop No. 5, Level 5: There are two instances of rusted reinforcing steel on the west face of the balcony. The steel reinforcement on the parapet upstand must be exposed with 1" clear space all around by chipping to remove the surrounding concrete. Concrete patching mortar followed by reapplication of new acrylic stucco finish shall follow. At the balcony soffit, the spalling due to rebar ends shall be repaired by patching, applying new acrylic finish, and repainting (Photos No. 7.8 to 7.10). SP

PROFESSIONAL ENGINEER
PROVINCE OF BRITISH COLUMBIA
J. E. DRINKWATER
47087

OBSERVER:

John Drinkwater, P.Eng.

REVIEWER:

Mark W. Emanuel, P.Eng., Principal

JD / ke

STRATA PLAN LMS 280 - CHATEAU COMOX
1272 COMOX STREET, VANCOUVER, B.C.
PHOTOGRAPHS TAKEN BY JOHN DRINKWATER, P.ENG.
AND THE CONTRACTOR
ON JULY 30, 2019

Photos No. 8.1 and 8.2

Photos No. 8.3 and 8.4

Photos No. 8.5 and 8.6

Photos No. 8.7 and 8.8

Photos No. 8.9 and 8.10

Photos No. 8.11 and 8.12

Photos No. 8.13 and 8.14

Photos No. 8.15 and 8.16

Photos No. 8.17 and 8.18

Photo No. 8.19

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OBSERVATION REPORT

Project: **Strata Plan LMS 280 – Chateau Comox**
1272 Comox Street
Vancouver, B.C.

File No. S18-558
Report No. 9
Date: Aug 12, 2019
Weather: Sun, 18°C

Client: Strata Plan LMS 280 – Chateau Comox
c/o Southview Property Management
110 – 7580 River Road
Richmond, B.C. V6X 1X6

Attention: Mr. Kevin Green — kevingreen@telus.net
Chateau Comox Strata Council — chateaucomox@gmail.com
Mr. Chris Clark — dcclark333@gmail.com
Mr. Don Davidson — dondavidson67@yahoo.ca
Mr. Kevin Wice — krw@krw.ca

Contractor: Spectrum Painting Ltd.
Attention: Mr. Adam Racanelli — adam@spectrumpaintingltd.com
Mr. Sam Zukanovic — sam@spectrumpaintingltd.com

ITEM: Building Envelope Field Review

Item	Comment	Action By	Date Cleared	Cleared By
9.1	The writer attended Chateau Comox on August 12, 2019 to meet with the representative from Spectrum Painting to conduct a pull test of a liquid applied polyurethane coating system application on the concrete balcony of Unit No. 602. The following are the observations of the writer while on site.			
9.2	Upon arrival, a test strip of reinforcement fabric sandwiched by two base coat layers was mocked up for a pull test at Unit No. 602 (Photo No. 9.1). The system specified for balcony surfaces is Tremco Vulkem 360NF Waterproof Traffic Deck System. Because of potential adhesion failures on these balconies due to substrate preparation issues, this pull test would determine if the system will fail through adhesion, the bond between the base coat and substrate. It was noted that the concrete surface was devoid of large cavities or existing coatings, and was sufficiently clean for membrane application.			
9.3	While pulling the reinforcement fabric upwards at a 90° angle, the mode of failure for the system was evidently the tensile ripping of the reinforcement fabric (Photos No. 9.2 and 9.3). As the adhesion of the substrate exceeds the cohesion of the system, the mode of failure was not the adhesion of the base coat to the substrate, SEE confirms that the pull test meets requirements for installation.			

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ENGINEERING LTD.

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Vancouver, BC V5Y 3T6
Phone 604 872-1211
Fax 604 872-1274
E-mail see@telus.net

OBSERVATION REPORT

PREVIOUS ACTIONABLE ITEMS

Item	Comment	Action By	Date Cleared	Cleared By
1.5	Drop No. 1, Level 8: Rusted steel and minor concrete spalls were uncovered along the concrete overhang and drip edge at the balcony. All loose concrete must be chipped away to expose 1" clear around the steel. The exposed steel shall be cleaned to a bright metal finish with a grinder then protected with a high zinc solid primer such as Galvacon. The concrete profile shall be reinstated with an overhead patching mortar such as Mapei Planitop and once secured, the acrylic stucco finish shall be reapplied (Photos No. 1.7 to 1.9).	SP		
6.8	Drop No. 4: At the bottom of the barrel wall on the north face, there are three locations of exposed steel rebar of the concrete structure. At two locations on the wall face, SEE instructed the contractor to clean the steel to a bright metal finish, prime with a zinc rich primer then apply a patch of polyurethane sealant over and recoat with paint. The third spall located at the drip edge at the base of the barrel wall requires full concrete repair treatment. The concrete should be chipped away from the rusted steel to expose a minimum of 1" all sides. The steel should be cleaned to a bright finish and zinc rich primed, then new overhead concrete patching mortar shall be formed in place. Once secured, the concrete patch can be primed, new acrylic stucco finish laid overtop, and painted to match the walls (Photos No. 6.13 and 6.14).	SP		
7.5	Drop No. 5, Level 4: Spalled concrete and rusted steel reinforcement on the balcony parapet require repair by chipping and patching (Photo No. 7.7).	SP		
7.6	Drop No. 5, Level 5: There are two instances of rusted reinforcing steel on the west face of the balcony. The steel reinforcement on the parapet upstand must be exposed with 1" clear space all around by chipping to remove the surrounding concrete. Concrete patching mortar followed by reapplication of new acrylic stucco finish shall follow. At the balcony soffit, the spalling due to rebar ends shall be repaired by patching, applying new acrylic finish, and repainting (Photos No. 7.8 to 7.10).	SP		

OBSERVER:

Allan Fan, Project Consultant

REVIEWER:

Mark W. Emanuel, P.Eng., Principal

PROFESSIONAL ENGINEER
PROVINCE OF BRITISH COLUMBIA
M.W. EMANUEL
14154

AF / ch

STRATA PLAN LMS 280 - CHATEAU COMOX
1272 COMOX STREET, VANCOUVER, B.C.
PHOTOGRAPHS TAKEN BY ALLAN FAN, PROJECT CONSULTANT
ON AUGUST 12, 2019

Photos No. 9.1 and 9.2

Photo No. 9.3

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OBSERVATION REPORT

Project: **Strata Plan LMS 280 – Chateau Comox**
1272 Comox Street
Vancouver, B.C.

File No. S18-558
Report No. 10
Date: Aug 15, 2019
Weather: Sun, 21°C

Client: Strata Plan LMS 280 – Chateau Comox
c/o Southview Property Management
110 – 7580 River Road
Richmond, B.C. V6X 1X6

Attention:	Mr. Kevin Green	kevingreen@telus.net
	Chateau Comox Strata Council	chateaucomox@gmail.com
	Mr. Chris Clark	dcclark333@gmail.com
	Mr. Don Davidson	dondavidson67@yahoo.ca
	Mr. Kevin Wice	krw@krw.ca
Contractor:	Spectrum Painting Ltd.	
Attention:	Mr. Adam Racanelli	adam@spectrumpaintingltd.com
	Mr. Sam Zukanovic	sam@spectrumpaintingltd.com

ITEM: Building Envelope Field Review

Item	Comment	Action By	Date Cleared	Cleared By
10.1	John Drinkwater, P.Eng. of Spratt Emanuel Engineering Ltd. (SEE) attended the above noted development on August 15, 2019 to conduct a building envelope field review. The following are the observations of the writer while on site.			
10.2	Painting and caulking work is nearly complete on the south elevation. The contractor has installed Dow Corning 123 Tape at all horizontal stucco expansion joints as required. The silicone tape spans across the vulnerable metal stucco expansion joint which had been observed to be rusty and failing on our condition review from last year. The lower edge of the silicone tape is provided with intermittent weeps which will allow any water which potentially gets behind to drain out. The tape is well installed over the uneven surface with no excessive bulging or wrinkling observed (Photos No. 10.1 to 10.3).			
10.3	At the top of the drop, there are three fireplace vents, two of which are installed in original face sealed construction. Silicone 123 Tape is required at the head and jambs of the lower two vents (Photo No. 10.4).			
10.4	At the southeast corner of the drop, caulking replacement is also required at the vertical joint between the window frame and corner flashing. The existing caulking must be removed and replaced with new. SEE requested the contractor apply sufficient pressure and caulking so that the material is injected between the mating surfaces to provide strong adhesive bond (Photo No. 10.5).			

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OBSERVATION REPORT

10.5	At Suite No. 702, acrylic stucco patching is required on the interior face and top horizontal surface of the balcony parapet (Photos No. 10.6 and 10.7).	SP
10.6	At Suite No. 602, the membrane base coat has been reapplied to the balcony with good workmanship observed (Photo No. 10.8).	
10.7	At the time of review, painting work was underway at the exterior walls facing the alley. Several locations with peeling acrylic finish have been uncovered and are in the process of being repaired. Typical rebar ends will be ground clean, primed, and covered with caulking prior to refinishing. Work in progress is good (Photos No. 10.9 to 10.11).	

PREVIOUS ACTIONABLE ITEMS

Item	Comment	Action By	Date Cleared	Cleared By
1.5	Drop No. 1, Level 8: Rusted steel and minor concrete spalls were uncovered along the concrete overhang and drip edge at the balcony. All loose concrete must be chipped away to expose 1" clear around the steel. The exposed steel shall be cleaned to a bright metal finish with a grinder then protected with a high zinc solid primer such as Galvacon. The concrete profile shall be reinstated with an overhead patching mortar such as Mapei Planitop and once secured, the acrylic stucco finish shall be reapplied (Photos No. 1.7 to 1.9).	SP		
6.8	Drop No. 4: At the bottom of the barrel wall on the north face, there are three locations of exposed steel rebar of the concrete structure. At two locations on the wall face, SEE instructed the contractor to clean the steel to a bright metal finish, prime with a zinc rich primer then apply a patch of polyurethane sealant over and recoat with paint. The third spall located at the drip edge at the base of the barrel wall requires full concrete repair treatment. The concrete should be chipped away from the rusted steel to expose a minimum of 1" all sides. The steel should be cleaned to a bright finish and zinc rich primed, then new overhead concrete patching mortar shall be formed in place. Once secured, the concrete patch can be primed, new acrylic stucco finish laid overtop, and painted to match the walls (Photos No. 6.13 and 6.14).	SP		
7.5	Drop No. 5, Level 4: Spalled concrete and rusted steel reinforcement on the balcony parapet require repair by chipping and patching (Photo No. 7.7).	SP		

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OBSERVATION REPORT

7.6 Drop No. 5, Level 5: There are two instances of rusted reinforcing steel on the west face of the balcony. The steel reinforcement on the parapet upstand must be exposed with 1" clear space all around by chipping to remove the surrounding concrete. Concrete patching mortar followed by reapplication of new acrylic stucco finish shall follow. At the balcony soffit, the spalling due to rebar ends shall be repaired by patching, applying new acrylic finish, and repainting (Photos No. 7.8 to 7.10). SP

OBSERVER:

John Drinkwater, P.Eng.

PROFESSIONAL ENGINEER
PROVINCE OF BRITISH COLUMBIA
J. E. DRINKWATER
47087

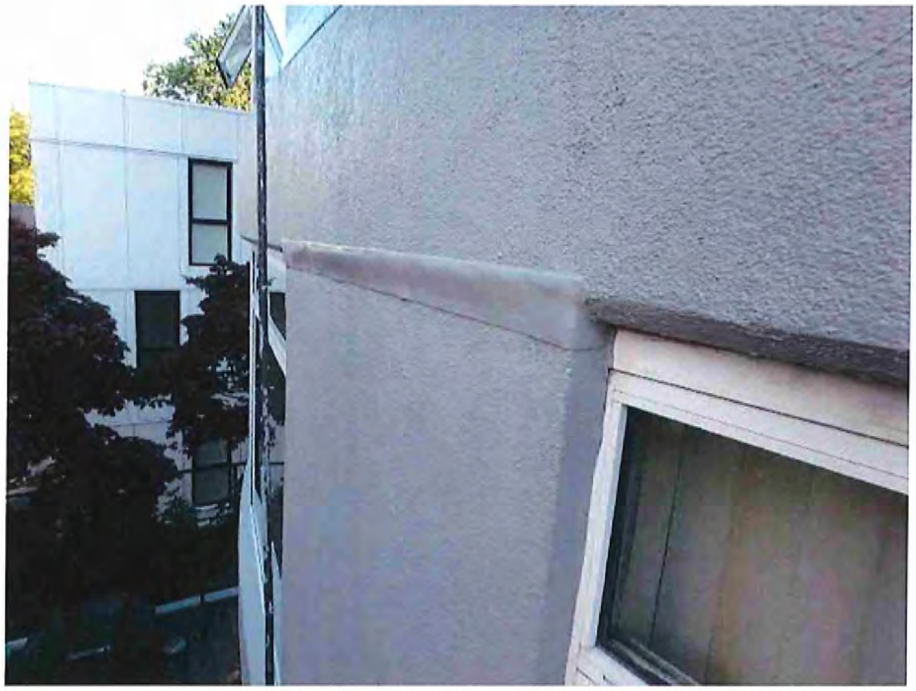
REVIEWER:

Mark W. Emanuel, P.Eng., Principal

JD / ke

STRATA PLAN LMS 280 – CHATEAU COMOX
1272 COMOX STREET, VANCOUVER, B.C.
PHOTOGRAPHS TAKEN BY JOHN DRINKWATER, P.ENG.
ON AUGUST 15, 2019

Photos No. 10.1 and 10.2



Photos No. 10.3 and 10.4

Photos No. 10.5 and 10.6

Photos No. 10.7 and 10.8

Photos No. 10.9 and 10.10

Photo No. 10.11

Product Information
Silicone
Seal

Dow Corning® 123 Silicone Seal

FEATURES & BENEFITS

- Economical, high-performance alternative to cutting-out and recaulking existing failed weatherproofing sealants
- Extremely low-modulus alternative to wet sealants
- High-movement seal capable of +200/-75 percent joint movement
- High-shear movement seal capable of handling specified live loads, wind sway and seismic movements in a properly designed joint
- SWRI-validated performance
- Ability to provide a complete weatherseal system when used with *Dow Corning*® AllGuard Silicone Elastomeric Coating
- Available in custom designs to allow easier application and smoother transitions
- Available in matte and textured finish (similar to EIFS)

COMPOSITION

- Preformed silicone elastomer extrusion

Preformed silicone seal for weatherproofing applications

APPLICATIONS

Dow Corning® 123 Silicone Seal is specifically designed for use in repair of failed construction joints and glazing details due to design error, field failure or when the life span of sealants and gaskets has expired. It can be used in a variety of applications such as:

- An economical, high-performance alternative to cutting-out and recaulking existing failed weatherproofing sealants
- A restoration joint on EIFS at both the EIFS-to-EIFS joints and window perimeter joints
- An aluminum splice in high-performance window and curtainwall applications
- A high-performance flexible flashing material ideal for maintenance crews
- A uniform-looking parapet or coping joint
- A leak-free transition seal
- A seal for leaking skylights

TYPICAL PROPERTIES

Specification Writers: These values are not intended for use in preparing specifications. Please contact your local Dow Corning sales office or your Global Dow Corning Connection before writing specifications on this product.

Test*	Property	Unit	Result
As Supplied – Cured Rubber Extrusion			
ASTM D 2240	Durometer Hardness, Shore A	points	25
ASTM D 412	Tensile Strength	psi (MPa)	40 (0.28)
ASTM D 412	Elongation	percent	400
	Tear Strength, die B	ppi (kN/m)	100 (17.5)
21 Day Sealant Cure – ½" (13-mm) Joint With 1½" (38-mm) Wide *Dow Corning* 123 Silicone Seal Bonded with *Dow Corning*® 795 Silicone Building Sealant			
ASTM C 1135[1]	Ultimate Strength	psi (MPa)	0 (0.275)
ASTM C 1135	Ultimate Elongation	percent	800
ASTM C 1135	Stress at 25% Elongation	psi (MPa) pli (N/m)	3.0 (0.021) 1.5 (263)
ASTM C 1135	Stress at 50% Elongation	psi (MPa) pli (N/m)	5.0 (0.034) 2.5 (438)
ASTM C 1135	Stress at 50% Compression	psi (MPa) pli (N/m)	< 5 (0.034) < 2.5 (438)

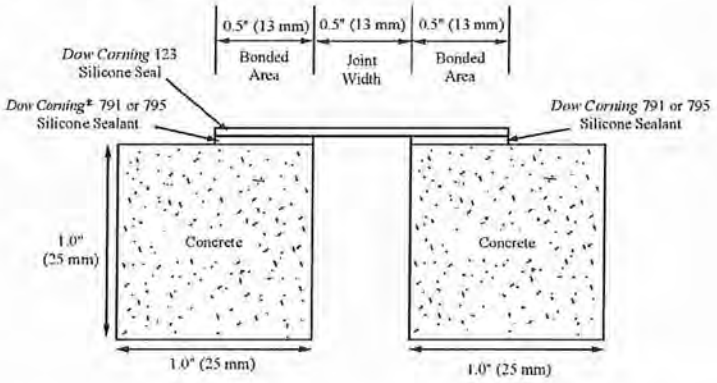
TYPICAL PROPERTIES (continued)

Test*	Property	Unit	Result
ASTM C 719	Movement Capability	percent	+200/-75
Unprimed Adhesion of *Dow Corning* 795 Silicone Building Sealant to *Dow Corning* 123 Silicone Seal			
ASTM C 794	Peel Strength, *Dow Corning* 795 Silicone Building Sealant	pli (N/m)	25 (4.38)

*ASTM: American Society for Testing and Materials.
[1]ASTM C 1135 and C 719 modifications used the joint configuration shown in Figure 1.

Dow Corning 123 Silicone Seal is easily applied: prepare the substrate around the failed sealant; apply *Dow Corning* 795 Silicone Building Sealant; and apply *Dow Corning* 123 Silicone Seal.

Figure 1: Joint Configuration Modifications of ASTM C 1135 and C 719 Tests Used for Determining Typical Properties Using 1½" (38-mm) Wide *Dow Corning* 123 Silicone Seal.



DESCRIPTION

Dow Corning 123 Silicone Seal is a preformed, ultra-low modulus silicone extrusion that is bonded to substrates using *Dow Corning*® 791 Silicone Perimeter Sealant or *Dow Corning* 795 Silicone Building Sealant.[1] Easy-to-install *Dow Corning* 123 Silicone Seal can be used in both new and remedial construction applications.

Dow Corning 123 Silicone Seal is available in the following standard colors: black, white, grey, bronze, limestone and sandstone. This product is also available in custom colors (1000 linear feet [305 m] minimum).

The same color of *Dow Corning* 791 Sealant or *Dow Corning* 795 Sealant should be used to bond the seal to the substrate.

In addition to standard and custom colors, *Dow Corning* 123 Silicone Seal is also available in a textured finish. The color or texture can also be altered at the job site using *Dow Corning* AllGuard Silicone Elastomeric Coating.

In addition to custom colors, *Dow Corning* 123 Silicone Seal is also available in custom extrusions with grooves to facilitate bending and dimensional shapes. These shapes may be custom designed to fit mullion and window systems and to work with the flat strips to provide improved aesthetics as well as maximum weatherproofing protection. Contact your Dow Corning Sales Application Engineer to discuss your design concepts and learn how they can be captured in long-lasting silicone materials.

HOW TO USE

Dow Corning 123 Silicone Seal must be bonded to clean, dry, frost-free, dust-free substrates using *Dow Corning* 791 Sealant or *Dow Corning* 795 Sealant. Field adhesion testing should be done to determine if primer is required for proper adhesion of *Dow Corning* 791 Sealant or *Dow Corning* 795 Sealant to the substrate.[1]

Preparation Work

Porous surfaces should be cleaned with abrasion cleaning followed by blasts of oil-free compressed air. If high-pressure water cleaning is necessary, use caution to prevent water from entering the structure through the

[1]Other *Dow Corning*® brand sealants may be recommended depending on the installation requirements.

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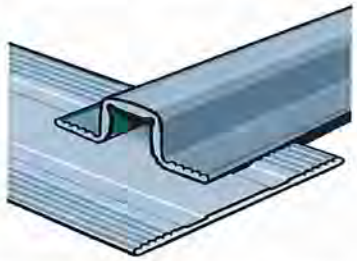
existing failed joint. Exterior surfaces must be visibly dry before installing *Dow Corning* 123 Silicone Seal.

Nonporous surfaces should be cleaned using the two-cloth solvent wipe as outlined in Dow Corning's sealant application guidelines. Masking Apply masking tape in areas of high visibility to ensure good aesthetics (see Figure 2).



Dow Corning 123 Custom Designs are available to meet aesthetic and weathersealing needs with a single product.

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Issued to: Dow Corning Corp
Product: 123 Silicone Seal

ASTM C 1523-10: Determining Modulus, Tear and Adhesion Properties of Pre-cured Elastomeric Joint Sealants

Movement, Cohesion & Adhesion: 200%

Dry/Room Temperature Loss of Adhesion/Cohesion	Pass ✓
Water Immersion Loss of Adhesion/Cohesion	Pass ✓
Frozen Loss of Adhesion/Cohesion	Pass ✓
Heat Loss of Adhesion/Cohesion	Pass ✓
Artificial Weathering Loss of Adhesion/Cohesion	Pass ✓

Tear Propagation: T-Tear

ASTM D 412: Vulcanized Rubber and Thermoplastic Elastomers - Tension

Ultimate Elongation
Results: 503%

Validation Date: 9/20/16 – 9/19/21
No. 916-1230921 *Copyright © 2016*

PRE-CURED SEALANTS VALIDATION
www.swrionline.org

Figure 2: Recommended Joint Design Using *Dow Corning* 123 Silicone Seal and *Dow Corning* 795 Silicone Building.

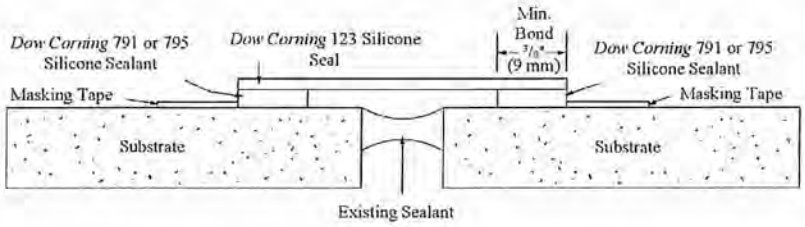
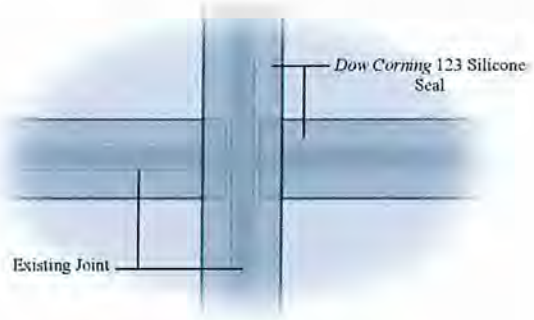
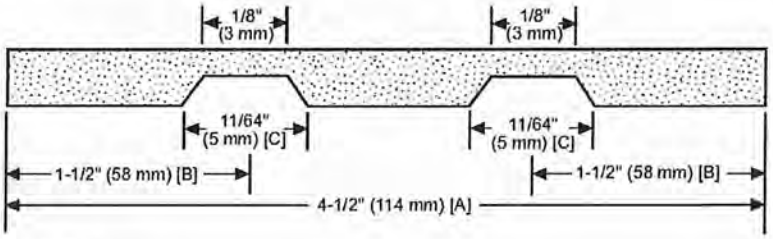


Figure 3: Overlapping Vertical Application of *Dow Corning* 123 Silicone Seal Over the Horizontal Seal.



Note: Vertical strips must overlap horizontal strips of *Dow Corning* 123 Silicone Seal.

Figure 4: Example Sketch of a Custom Design.



Design indicates:

- Total width (A).
- Placement of grooves (B), specifying the distance from the strip's edge to the center of the grooves.
- Width of grooves (C). Unless specified otherwise, these are $1\,{}^{1}/_{64}$" (5 mm) wide. All grooves will be $^{1}/_{32}$" (1 mm) deep.

Application

Apply a bead of *Dow Corning* 791 Silicone Sealant or *Dow Corning* 795 Silicone Sealant to each side of the joint according to the following schedule:

Substrate	Coverage linear ft (m)/tube	Bead Size
Rough	20–40 (6–12)	$^{1}/_{4}$" (6 mm)
Smooth	70–120 (21–37)	$^{1}/_{8}$" (3 mm)

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Note: Rough surfaces will require larger beads of sealant to seal the valleys of the substrate. The sealant should be applied approximately 1/4" (6 mm) inside the masking tape on both sides of the joint. The minimum bonded area must be at least 3/8" (9 mm) (see Figure 2).

Within 10 minutes of sealant application, press the extrusion into the sealant to wet the extrusion, substrate and sealant. A roller can be used to apply consistent pressure to ensure uniform contact. The ridges on the back of *Dow Corning* 123 Silicone Seal will help ensure proper sealant coverage.

Horizontal joints must be completed before application of vertical joints. Vertical joints should be lapped over the horizontal joints as shown in Figure 3.

At the end of the joint, cut the extrusion with a razor knife.

Clean-Up
Remove masking tape and excess sealant.

Maintenance
No maintenance should be needed. The surface can be cleaned with soap and water.

If the seal becomes damaged, replace the damaged portion. *Dow Corning* 791 Silicone Sealant or *Dow Corning* 795 Silicone Sealant will adhere to the existing *Dow Corning* 123 Silicone Seal with only a preparatory solvent wipe to remove accumulated dirt.

HANDLING PRECAUTIONS

PRODUCT SAFETY INFORMATION REQUIRED FOR SAFE USE IS NOT INCLUDED IN THIS DOCUMENT. BEFORE HANDLING, READ PRODUCT AND SAFETY DATA SHEETS AND CONTAINER LABELS FOR SAFE USE, PHYSICAL AND HEALTH HAZARD INFORMATION. THE SAFETY DATA SHEET IS AVAILABLE ON THE DOW CORNING WEBSITE AT DOWCORNING.COM, OR FROM YOUR DOW CORNING SALES APPLICATION ENGINEER, OR DISTRIBUTOR, OR BY CALLING DOW CORNING CUSTOMER SERVICE.

PACKAGING INFORMATION

Dow Corning 123 Silicone Seal is available in 100-foot rolls. Standard stocked sizes include widths of 1", 1½", 2", 2½", 3", 4", 5" and 6" (25, 38, 51, 64, 76, 102, 127 and 152 mm) in black (also stocked in 12"), white, grey, bronze, limestone and sandstone colors. Standard, but non-stock sizes, include widths of 3½", 4½" and 5½" (89, 114 and 140 mm) in all colors. All sizes of blue spruce, dusty rose, adobe tan, charcoal and rustic brick are non-stock items. Custom sizes are available in 1 to 6" (25 to 152 mm) in 0.5" (13 mm) increments, and 7 to 12" (178 to 305 mm) in 1" (25 mm) increments.

LIMITATIONS

Dow Corning 123 Silicone Seal is not intended for use:

- With *Dow Corning*® 790 Silicone Building Sealant as an adhesive
- With non-*Dow Corning*® brand sealants or acetoxy cure silicone sealants as the bonding sealant
- In below-grade applications

This product is neither tested nor represented as suitable for medical or pharmaceutical uses.

HEALTH AND ENVIRONMENTAL INFORMATION

To support Customers in their product safety needs, Dow Corning has an extensive Product Stewardship organization and a team of Product Safety and Regulatory Compliance (PS&RC) specialists available in each area.

For further information, please see our website, dowcorning.com or consult your local Dow Corning representative.

LIMITED WARRANTY INFORMATION – PLEASE READ CAREFULLY

The information contained herein is offered in good faith and is believed to be accurate. However, because conditions and methods of use of our products are beyond our control, this information should not be used in substitution for customer's tests to ensure that our products are safe, effective, and fully satisfactory for the intended end use. Suggestions of use shall not be taken as inducements to infringe any patent.

Dow Corning's sole warranty is that our products will meet the sales specifications in effect at the time of shipment.

Your exclusive remedy for breach of such warranty is limited to refund of purchase price or replacement of any product shown to be other than as warranted.

TO THE FULLEST EXTENT PERMITTED BY APPLICABLE LAW, DOW CORNING SPECIFICALLY DISCLAIMS ANY OTHER EXPRESS OR IMPLIED WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE OR MERCHANTABILITY.

DOW CORNING DISCLAIMS LIABILITY FOR ANY INCIDENTAL OR CONSEQUENTIAL DAMAGES.

We help you invent the future.™

dowcorning.com

2016, November 23
Form No. 62-469K-01

Product Information
Silicone Sealants

DOW CORNING

Dow Corning® 795 Silicone Building Sealant

Neutral, one-part silicone sealant

FEATURES & BENEFITS

- Suitable for most new construction and remedial sealing applications
- Versatile – high performance structural glazing and weather sealing from a single product
- Available in 16 standard colors; custom colors also available
- Excellent weatherability – virtually unaffected by sunlight, rain, snow, ozone and temperature extremes of -40°F (-40°C) to 300°F (149°C)
- Excellent unprimed adhesion to a wide variety of construction materials and building components, including anodized, alodined, most coated and many Kynar®[1]-painted aluminums[2]
- Ease of application – ready to use as supplied
- Ease of use – all-temperature gunnability, easy tooling and low-odor cure byproduct
- Meets global standards (Americas, Asia and Europe)

COMPOSITION

- One-part, neutral-cure, RTV silicone sealant

APPLICATIONS

- Structural and nonstructural glazing
- Structural attachment of many panel systems
- Panel stiffener applications
- Weather sealing of most common construction materials including glass, aluminum, steel, painted metal, EIFS, granite and other stone, concrete, brick and plastics

TYPICAL PROPERTIES

Specification Writers: These values are not intended for use in preparing specifications. Please contact your local Dow Corning sales office or your Global Dow Corning Connection before writing specifications on this product.

Test[1]	Property	Unit	Result
As Supplied			
ASTM C 679	Tack-Free Time, 50% RH	hours	3
	Curing Time at 25°C (77°F), 50% RH	days	7–14
	Full Adhesion	days	14–21
ASTM C 639	Flow, Sag or Slump	inches (mm)	0.1 (2.54)
	Working Time	minutes	20–30
	VOC Content[2]	g/L	32
As Cured-After 21 days at 25°C (77°F) and 50% RH			
ASTM D 2240	Durometer Hardness, Shore A	points	35
ASTM C 794	Peel Strength	lb/in (kg/cm)	32 (5.7)
ASTM C 1135	Tension Adhesion Strength		
	At 25% extension	psi (MPa)	45 (0.310)
	At 50% extension	psi (MPa)	60 (0.414)
ASTM C 719	Joint Movement Capability	percent	± 50
ASTM C 1248	Staining (granite, marble, lime-stone, brick and concrete)		None
As Cured-After 21 days at 25°C (77°F) and 50% RH followed by 10,000 hours in a QUV weatherometer, ASTM G 53			
ASTM C 1135	Tensile Adhesion Strength		
	At 25% extension	psi (MPa)	35 (0.241)
	At 50% extension	psi (MPa)	50 (0.345)

[1]ASTM – American Society for Testing and Materials.
[2]Based on South Coast Air Quality Management District of California. Maximum VOC is listed both inclusive and exclusive of water and exempt compounds. For a VOC data sheet for a specific sealant color, please send your request to product.inquiry@dowcorning.com.

[1]Kynar is a trademark of Atofina Chemicals Inc.
[2]Contact your local Dow Corning Sales Application Engineer for specifics.

DESCRIPTION

Dow Corning® 795 Silicone Building Sealant is a one-part, neutral-cure, architectural-grade sealant that easily extrudes in any weather and cures quickly at room temperature. This cold-applied, non-sagging silicone material cures to a medium- modulus silicone rubber upon exposure to atmospheric moisture. The cured sealant is durable and flexible enough to accommodate ±50 percent movement of original joint dimension when installed in a properly designed weather seal joint. In a properly designed structurally glazed joint, the sealant is strong enough to support glass and other panel materials under high wind load.

APPROVALS/ SPECIFICATIONS

Dow Corning 795 Silicone Building Sealant meets the requirements of:

- Federal Specification TT-S 001 543A (COM-NBS) Class A for silicone building sealants
- Federal Specification TT-S-00230C (COM-NBS) Class A for one- component building sealants
- ASTM Specification C 920 Type S, Grade NS, Class 50, Use NT, G, A and O
- ASTM Specification C 1184 for structural silicone sealants
- Canadian Specification CAN2-19.13- M82

SEALANT • WATERPROOFING & RESTORATION INSTITUTE

Issued to: Dow Corning Corp.®
Product: 795 Silicone Building Sealant

C719: Pass ✔ Ext:+50% Comp:-50%

Substrate: Glass, Aluminum, Kynar
[Glass and Aluminum Substrates were tested unprimed; Dow Corning 1200 OS Primer used on Kynar substrates]

C661: Rating 41

Validation Date: 9/11/12 - 9/10/17

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SEALANT VALIDATION
www.swrionline.org

COLORS

Dow Corning 795 Silicone Building Sealant is available in 16 colors: white, limestone, champagne, natural stone, gray, black, bronze, sandstone, adobe tan, dusty rose, rustic brick, blue spruce, anodized aluminum, and charcoal. Custom colors may be ordered to match virtually any substrate.

HOW TO USE

Please consult the *Dow Corning Americas Technical Manual*, Form No. 62-1112, for detailed information on state-of-the- art application methods and joint design. Please contact your local Dow Corning Sales Application Engineer for specific advice.

Preparation

Clean all joints, removing all foreign matter and contaminants such as grease, oil, dust, water, frost, surface dirt, old sealants or glazing compounds and protective coatings.

Application Method

Install backing material or joint filler, setting blocks, spacer shims and tapes. Mask areas adjacent to joints to ensure neat sealant lines. Primer is generally not required on non-porous surfaces, but may be necessary for optimal sealing of certain porous surfaces. A test placement is always recommended. Apply *Dow Corning* 795 Silicone Building Sealant in a continuous operation using positive pressure. (The sealant can be applied using many types of air-operated guns and most types of bulk dispensing equipment.) Before a skin forms (typically within 15 minutes), tool the sealant with light pressure to spread the sealant against the backing material and joint surfaces. Remove masking tape as soon as the bead is tooled.

HANDLING PRECAUTIONS

PRODUCT SAFETY INFORMATION REQUIRED FOR SAFE USE IS NOT INCLUDED IN THIS DOCUMENT. BEFORE HANDLING, READ PRODUCT AND SAFETY DATA SHEETS AND CONTAINER LABELS FOR SAFE USE, PHYSICAL AND HEALTH HAZARD INFORMATION. THE SAFETY DATA SHEET IS AVAILABLE ON THE DOW CORNING WEBSITE AT DOWCORNING.COM, OR FROM YOUR DOW CORNING SALES APPLICATION ENGINEER, OR DISTRIBUTOR, OR BY CALLING DOW CORNING CUSTOMER SERVICE.

USABLE LIFE AND STORAGE

When stored at or below 27°C (80°F), *Dow Corning* 795 Silicone Building Sealant has a shelf life of 12 months from the date of manufacture. Refer to product packaging for "Use By Date."

PACKAGING INFORMATION

Dow Corning 795 Silicone Building Sealant is supplied in 10.3-fl oz (305-mL) disposable plastic cartridges that fit ordinary caulking guns, 20-fl oz (590- mL) sausages and 2- and 4.5-gal (7.5- and 1 7-L) bulk containers.

LIMITATIONS

Dow Corning 795 Silicone Building Sealant should not be used:

- In structural applications without prior review and approval by your local Dow Corning Sales Application Engineer
- In below-grade applications
- When surface temperatures exceed 50°C (122°F) during installation
- On surfaces that are continuously immersed in water

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- On building materials that bleed oils, plasticizers or solvents that may affect adhesion
- On frost-laden or wet surfaces
- In totally confined joints (the sealant requires atmospheric moisture for cure)
- If the sealant is intended to be painted (paints do not typically adhere to most silicone sealants)
- To surfaces in direct contact with food or other food-grade applications

This product is neither tested nor represented as suitable for medical or pharmaceutical uses.

HEALTH AND ENVIRONMENTAL INFORMATION

To support customers in their product safety needs, Dow Corning has an extensive Product Stewardship organization and a team of Product Safety and Regulatory Compliance (PS&RC) specialists available in each area.

For further information, please see our website, dowcorning.com or consult your local Dow Corning representative.

LIMITED WARRANTY INFORMATION – PLEASE READ CAREFULLY

The information contained herein is offered in good faith and is believed to be accurate. However, because conditions and methods of use of our products are beyond our control, this information should not be used in substitution for customer's tests to ensure that our products are safe, effective, and fully satisfactory for the intended end use. Suggestions of use shall not be taken as inducements to infringe any patent.

Dow Corning's sole warranty is that our products will meet the sales specifications in effect at the time of shipment.

Your exclusive remedy for breach of such warranty is limited to refund of purchase price or replacement of any product shown to be other than as warranted.

TO THE FULLEST EXTENT PERMITTED BY APPLICABLE LAW, DOW CORNING SPECIFICALLY DISCLAIMS ANY OTHER EXPRESS OR IMPLIED WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE OR MERCHANTABILITY.

DOW CORNING DISCLAIMS LIABILITY FOR ANY INCIDENTAL OR CONSEQUENTIAL DAMAGES.

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Product Information
Silicone
Coatings

Dow Corning® AllGuard Silicone Elastomeric Coating

FEATURES & BENEFITS

- Provides long-term waterproofing protection
- Maintains water protection properties even when exposed to sunlight, rain, snow, or temperature extremes

COMPOSITION

- One-component, pigmented, water-based silicone elastomer

Water-based silicone elastomer for waterproofing above-grade exterior masonry substrates

APPLICATIONS

- *Dow Corning*® AllGuard Silicone Elastomeric Coating is designed to waterproof above-grade exterior masonry substrates, such as concrete block, fluted block, brick, stucco, synthetic stucco, poured concrete, precast concrete, exterior insulation finish systems (EIFS), and previously coated masonry substrates.

TYPICAL PROPERTIES

Specification Writers: These values are not intended for use in preparing specifications. Please contact your local Dow Corning sales office or your Global Dow Corning Connection before writing specifications on this product.

Test[1]	Property	Unit	Result
ASTM D 2369	Solids Content	% by weight % by volume	58.6 50.1
ASTM D 1475	Specific Gravity	lb/gal (kg/L)	9.64 (1.155)
ASTM D 2196	Viscosity[2]	cps (Pa s)	37,500 (37.5)
ASTM D 1849	High Temperature Stability (no change in viscosity)	days	> 28
EPA Method 24	Volatile Organic Content[3] (VOC)	g/L (lb/gal)	< 50 (< 0.42)
As Cured			
ASTM D 2240	Durometer Hardness, Shore A	points	38
ASTM D 412	Tensile Strength	psi (MPa)	> 145 (1.00)
ASTM D 412	Elongation	%	600
ASTM D 1653	Permeance	English perms (ng/(m².Pa.s))	43.2 (2480)
ASTM D 522	Room Temperature, Flex, 1/8" mandrel		Pass
ASTM C 711	Low Temperature Flex, 1/4" mandrel		Pass
ASTM D 3274	Fungus Resistance		No growth
ASTM D 6904	Wind Driven Rain[4]		Pass
ASTM D 2243	Freeze/Thaw Resistance		No Change

[1]ASTM: American Society of Testing and Materials.
[2]Brookfield HAV, spindle #3, 2 rpm.
[3]VOC includes all Dow Corning approved colors (EPA method 24 or 40 CFR 59.406 data).
[4]Measured on coating system with two coats (10 mil dry film thickness) of *Dow Corning* AllGuard Silicone Elastomeric Coating.

DESCRIPTION

Dow Corning AllGuard Silicone Elastomeric Coating is a one-part, 100 percent water-based silicone elastomer supplied in three tint bases for pigmenting at distributor locations. The coating is typically applied in two coats. The use of *Dow Corning*® AllGuard Primer may be necessary based on the substrate. The coating can be roller, brush, or spray applied. It cures to form a flexible membrane that is impervious to water but has the ability to "breathe," allowing water vapor to escape from inside the substrate. Its matte finish minimizes brush and roller marks. The coating provides long-term waterproofing protection, withstanding hurricane-force, wind-driven rain; normal movement imposed by seasonal thermal contraction and expansion; ultraviolet radiation; and the elements. The coating maintains its water protection properties even when exposed to sunlight, rain, snow, or temperature extremes.

Once pigmented, it is a ready-to-use material that can be applied between -6°C (20°F) and 38°C (100°F) to a clean, dry surface. The average drying time is 4 to 8 hours, depending upon temperature, humidity, and wind conditions. If the temperature drops below -6°C (20°F) after the coating is applied, the average drying time will increase. *Dow Corning* AllGuard Elastomeric Coating requires temperatures higher than -6°C (20°F) for a cumulative total of 24 hours to dry.

Dow Corning AllGuard Silicone Elastomeric Coating will attain full adhesion and physical properties in 7 to 14 days.

Dow Corning AllGuard Silicone Elastomeric Coating is available in more than 55 standard colors or can be custom colored to order.

HOW TO USE

When properly applied and cured, *Dow Corning* AllGuard Silicone Elastomeric Coating provides a fast, easy, and effective method of keeping exterior above-grade surfaces waterproof.

Design Considerations

In many building designs, areas such as ledges and windowsills allow air-borne dirt and soot to accumulate. Surfaces exposed to concentrated water run-down may appear dirty or streaky over time and the coating may become difficult to clean. In those areas, drip edges should be installed before the coating is applied to rechannel water away from the surface to protect the long-term appearance of the facade.

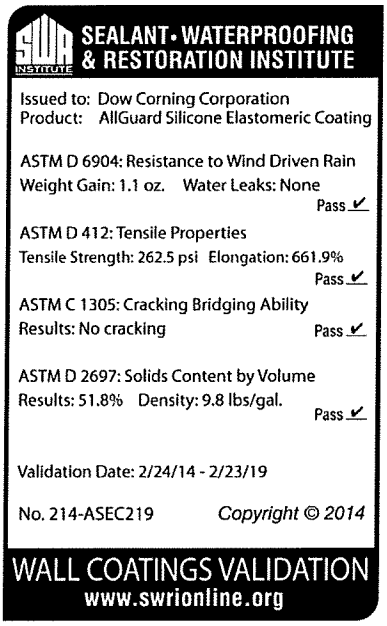
The success of a drip edge is achieved by moving the runoff water away from the wall onto the drip edge, creating a non-uniform runoff.

A drip edge can be fabricated from the same material as the windowsills or from other formable composites. The drip edge can be mechanically adhered to the substrate or attached with *Dow Corning*® 795 Silicone Building Sealant (see Figure 1).

Surface Preparation

All surfaces to be coated with *Dow Corning* AllGuard Silicone Elastomeric Coating must be prepared as described in the most recent *Dow Corning* AllGuard Silicone Elastomeric Coating Application and Maintenance Guide (Form No. 62-617). The following is a short reference guide for surface preparations.

All surfaces must be clean and free of dirt, frost, dust, oil, grease, mold, fungus, efflorescence, laitance, peeling coating, chalking coating, and any other foreign material. Green concrete must be allowed to cure 28 days before application of *Dow Corning* AllGuard Silicone Elastomeric Coating (see "Limitations"). Pressure clean, wire brush, or grind the wall surface to remove all of the above materials. Repair any damaged concrete, stucco, block, brick, masonry, or EIFS. Repair cracks larger than 1/16" (1.6 mm) with a material that is compatible with the substrate and *Dow Corning* AllGuard Silicone Elastomeric Coating. *Dow Corning*® 790 or 795 Silicone Building Sealant or *Dow Corning*® 791 Silicone Perimeter Sealant can be used for crack repairs.



Coating

A minimum of two coats of *Dow Corning* AllGuard Silicone Elastomeric Coating are necessary to achieve the required 10-mil (0.25-mm) minimum dry film thickness to attain protection against through-water penetration and to qualify for a project-specific warranty.

Apply the coating in a 10-mil (0.25-mm) wet thickness (a job-specific mockup is recommended to determine actual usage). Due to *Dow Corning* AllGuard Silicone being

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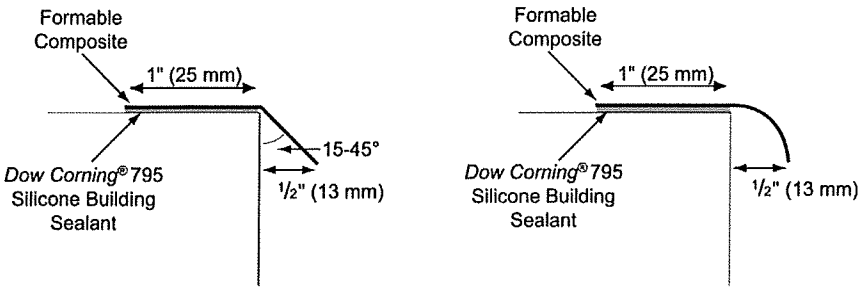
50% solids, two thick wet coats (10- to 12-mil [0.25- to 0.30-mm]) will result in the required 10-mil (0.25-mm) dry coating thickness. On occasion, a third coat may be necessary on porous or rough surfaces to achieve the minimum dry film thickness.

Apply using a ¾ to 1½" (19- to 38-mm) nap, polyester, or 50/50 polyester/wool blend roller cover, nylon bristle brush, or airless sprayer. When applying the coating with a roller, apply it in a fan pattern to achieve uniform thickness. Always finish roller applications in the same direction to reduce visual surface texture differences. When applying with an airless sprayer, follow the spray application with a back roll of material to ensure a uniform coating and appearance.

Figure 1: Drip Edge Design Consideration



Allow the coating to dry (typically 2 to 4 hours) before applying additional coats. Note: Do not thin or cut back *Dow Corning* AllGuard Silicone Elastomeric Coating.

After the additional coat has been applied, the average drying time is 4 to 8 hours, depending upon temperature, humidity, and wind conditions. *Dow Corning* AllGuard Silicone Elastomeric Coating will attain full adhesion and physical properties in 7 to 14 days.

Low Temperature Application
If temperatures drop below -6°C (20°F), the coating will freeze on the surface until the temperature increases. This will not affect the cured properties of the coating, but will extend the drying time.

The coating should be dry to touch, not simply freeze between coats. Application equipment such as rollers and the tips of spraying equipment should be kept above 0°C (32°F) when not in use.

Dow Corning AllGuard Silicone Elastomeric Coating was developed to obtain good adhesion to the substrate without the need of a primer. To verify that this adhesion is sufficient, field adhesion tests must be performed as described in the *Dow Corning* AllGuard Silicone Elastomeric Coating Application and Maintenance Guide. If adhesion does not meet requirements, a field adhesion test with primer should be performed. To obtain a project-specific warranty, field adhesion testing, meeting the requirements, must be performed and documented. Surface adhesion tests on each type of substrate and each face of the structure must be field adhesion tested and acceptable per the *Dow Corning* AllGuard Silicone Elastomeric Coating Application and Maintenance Guide.

Maintenance
Walls should be inspected at least once a year. If coating becomes damaged, repair damaged portion to maintain weatherproofing performance. Any touch-ups or repairs to the coating can be completed by applying *Dow Corning* AllGuard Silicone Elastomeric Coating to the clean, dry area in accordance to the recommendations in this data sheet and the *Dow Corning* AllGuard Silicone Elastomeric Coating Application and Maintenance Guide.

Dow Corning recommends routine cleaning to minimize dirt accumulation, following these guidelines:

1. Abrasive cleaners and cleaning equipment should never be used.

2. Clean using pressurized water and a basic cleaning agent such as TSP (Trisodium Phosphate)[1] or Simple Green™. Water pressure should not exceed 1,500 psi (10.3 MPa) to clean the surface without removing the coating material from the wall surface. A small test patch should be done first to determine how long the cleaning agent should be left on the surface before rinsing.

3. Removal of stubborn marks may require the use of a soft bristle brush with the cleaning solution. Avoid stiff brushes that may abrade the coating.

[1]Follow solvent manufacturer's recommended safe handling instructions and applicable federal, state, and local laws.

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HANDLING PRECAUTIONS

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USABLE LIFE AND STORAGE

Protect *Dow Corning* AllGuard Silicone Elastomeric Coating and *Dow Corning* AllGuard Primer from freezing. Store in a cool, dry place out of the weather. When properly stored in its original, unopened container above 1°C (34°F) and below 32°C (90°F), *Dow Corning* AllGuard Silicone Elastomeric Coating and *Dow Corning* AllGuard Primer have shelf lives of 9 months and 18 months, respectively, from date of manufacture. Refer to product packaging for "Use by Date."

If *Dow Corning* AllGuard Silicone Elastomeric Coating is stored at temperatures below -6°C (20°F) for longer than 8 hours, the coating will start to freeze. Allow the *Dow Corning* AllGuard Silicone Elastomeric Coating to sit at temperatures greater than 20°F for at least 8 hours or until the material thaws before application.

PACKAGING INFORMATION

Dow Corning AllGuard Silicone Elastomeric Coating and *Dow Corning* AllGuard Primer are available in 5-gal (19-L) pails (42-46 lb [19-21 kg] per pail depending on color).

LIMITATIONS

Dow Corning AllGuard Silicone Elastomeric Coating should not be applied:

- When there is a threat of rain within the next 24 hours or the relative humidity is in excess of 90 percent (because conditions would not permit complete surface drying)
- On below-grade applications
- On non-masonry substrates such as metal, wood, plastic, or asphaltic materials, or on tar-contaminated masonry
- As a decorative paint (*Dow Corning* AllGuard Silicone Elastomeric Coating is not warranted for aesthetics)
- On newly applied or green cementitious materials; Industry guidelines recommend at least 28 days cure before painting or coating the substrates (see SSPC, 2010 Painting Manual, Chapter 3.1. Concrete Surface Preparation)

This product is neither tested nor represented as suitable for medical or pharmaceutical uses.

HEALTH AND ENVIRONMENTAL INFORMATION

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For further information, please see our website, dowcorning.com or consult your local Dow Corning representative.

LIMITED WARRANTY INFORMATION – PLEASE READ CAREFULLY

The information contained herein is offered in good faith and is believed to be accurate. However, because conditions and methods of use of our products are beyond our control, this information should not be used in substitution for customer's tests to ensure that our products are safe, effective, and fully satisfactory for the intended end use. Suggestions of use shall not be taken as inducements to infringe any patent.

Dow Corning's sole warranty is that our products will meet the sales specifications in effect at the time of shipment.

Your exclusive remedy for breach of such warranty is limited to refund of purchase price or replacement of any product shown to be other than as warranted.

TO THE FULLEST EXTENT PERMITTED BY APPLICABLE LAW, DOW CORNING SPECIFICALLY DISCLAIMS ANY OTHER EXPRESS OR IMPLIED WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE OR MERCHANTABILITY.

DOW CORNING DISCLAIMS LIABILITY FOR ANY INCIDENTAL OR CONSEQUENTIAL DAMAGES.

We help you invent the future.™

NOTE: *Dow Corning* AllGuard Silicone Elastomeric Coating is NOT warranted for use on single-family residential dwellings.

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DOW®

High Performance Building

Dow Performance Silicones

DOWSIL™ AllGuard Silicone Elastomeric Coating

Application and Maintenance Guide

DOWSIL™

Contents

This document is intended to provide installation and field testing instructions for DOWSIL™ AllGuard Silicone Elastomeric Coating. Additional information regarding cleaning and maintenance is included to provide maximum, long-term waterproof performance for your building.

Product Description Guide

DOWSIL™ AllGuard Silicone Elastomeric Coating is a one-component water-based silicone elastomer designed to waterproof above-grade exterior masonry substrates. Featuring a smooth, matte finish, this coating is available in a broad range of standard and custom colors that are made to order at your distributor's location.

Ideal for both new construction and renovation projects, DOWSIL™ AllGuard Silicone Elastomeric Coating withstands wind-driven rain without water penetration.

Substrate Compatibility

DOWSIL™ AllGuard Silicone Elastomeric Coating is designed to waterproof above-grade exterior masonry substrates, such as concrete block, fluted block, brick, stucco, synthetic stucco, poured concrete, precast concrete, Exterior Insulation Finish Systems (EIFS), and previously coated masonry substrates.

DOWSIL™ AllGuard Silicone Elastomeric Coating generally has primerless adhesion to these substrates. Field adhesion testing is required at the site to ensure primerless results.

Compatibility with DOWSIL™ Products

DOWSIL™ AllGuard Silicone Elastomeric Coating is compatible with the DOWSIL products listed here. DOWSIL™ AllGuard Silicone Elastomeric Coating can be applied over the sealants after they have been allowed to achieve tack-free cure (see sealant data sheets for specific cure times). It is the only coating that can be used for application over DOWSIL™ 123 Silicone Seal. Products commonly used with DOWSIL™ AllGuard Silicone Elastomeric Coating include:

- DOWSIL™ 123 Silicone Seal
- DOWSIL™ 756 SMS Building Sealant
- DOWSIL™ 790 Silicone Building Sealant
- DOWSIL™ 791 Silicone Weatherproofing Sealant
- DOWSIL™ 795 Silicone Building Sealant

When DOWSIL™ AllGuard Silicone Elastomeric Coating is used in conjunction with DOWSIL™ 123 Silicone Seal and these recommended sealants, complete building protection can be achieved.

Colors

DOWSIL™ AllGuard Silicone Elastomeric Coating is available in over 55 standard colors, and a full range of custom colors is available from your DOWSIL construction products distributor.

Shelf Life

DOWSIL™ AllGuard Silicone Elastomeric Coating has a shelf life of nine months from date of manufacture.

Application

Design Considerations

As with any high-performance material, care taken in initial design and application will result in longer coating life.

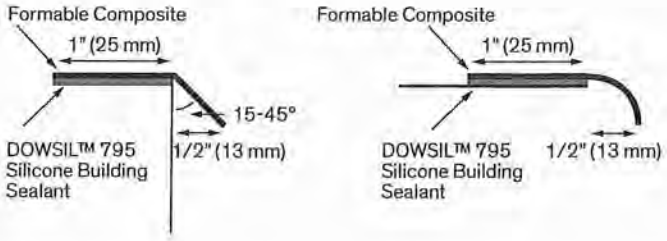
In many building designs, there may be areas such as ledges and window sills that allow airborne dirt and soot to accumulate. If the design permits or promotes channeling of water runoff from these areas, dirt streaking is likely to result.

Wall texture and environmental conditions are also important factors in the quantity and type of dirt accumulated. Industrial areas and nearby highways increase the probability of soot and hydrocarbon in the air, resulting in a greater chance of dirt pickup and streaking. If the building's location, design, wall surface, or existing dirt streaking indicates channeling of water down the side of the wall, drip edges are recommended on the ledges, window sills, and scuppers to reduce dirt streaking on DOWSIL™ AllGuard Silicone Elastomeric Coating.

In field tests, the use of a drip edge greatly reduces or eliminates dirt streaking. The use of the drip edge moves the runoff water away from the wall, creating a non-patterned runoff.

A drip edge can be fabricated from the same material as the window sills or from other formable composites. The design of the drip edge should allow for a minimum 1" (25-mm) width for attachment to the ledge, with a bent edge of 15 to 45° or minimum 1/2" (13-mm) radius, with the edge at least 1/2" (13-mm) away from the wall (see Figure 1). The drip edge can be mechanically adhered to the substrate or attached with DOWSIL™ 791 Silicone Weatherproofing Sealant or DOWSIL™ 795 Silicone Building Sealant. A field adhesion test on the sealant to drip edge and sill must be performed to verify good adhesion.

Figure 1: Drip Edge Design



Temperature and Humidity

DOWSIL™ AllGuard Silicone Elastomeric Coating can be applied from -6 to 38°C (20 to 100°F). If the temperature drops below -6°C (20°F) after the coating is applied, the average drying time will increase. DOWSIL™ AllGuard Silicone Elastomeric Coating requires temperatures higher than -6°C (20°F) for a cumulative total of 24 hours to dry. Do not apply the coating when the relative humidity is greater than 90 percent or when there is a threat of rain within 24 hours.

Surface Preparation

For recommendations to ensure proper cleaning and preparation of the substrate prior to coating, please refer to Table I.

Sealing Cracks

Static cracks less than 1/16" (1.6 mm) can be bridged with DOWSIL™ AllGuard Silicone Elastomeric Coating.

Static cracks greater than 1/16" (1.6 mm) must be repaired by methods suitable for the substrate before being coated with DOWSIL™ AllGuard Silicone Elastomeric Coating.

Moving cracks should be stabilized or properly repaired for the expected movement prior to installation of DOWSIL™ AllGuard Silicone Elastomeric Coating to prevent tearing of the coating due to excessive movement.

Table I: Surface Preparation[1]

Surface Conditions	Detection Method	Removal Method
Efflorescence[2]	Wipe with dark cloth	Wire brush; then clean with high-pressure water. On stubborn deposits, mix one part muratic acid (or similar) to 12 parts water; then clean with high-pressure water.
Dirt/Dust	Wipe with dark cloth	High-pressure water cleaning
Laitance	Scrape with putty knife looking for powdery material	Scrape with steel scraping tool followed by high-pressure water cleaning.
Mildew	Visual	Scrub with five percent bleach solution followed by high-pressure water cleaning.
Grease/Oil	Sprinkle water on surface	Trisodium phosphate (TSP) solution in hot water and high-pressure water cleaning
Form release, curing, or surface-hardening compounds	Visual; sprinkle water on the surface[3]	Must be removed by mechanical abrasion or abrasive water cleaning
Existing paints/coatings	Visual	High pressure water clean the building to remove any loose sections prior to coating the building.

1 These are general recommendations; please refer to substrate manufacturer for specific remediation recommendations.
2 Efflorescence may be caused by migration of water through a cementitious substrate reacting with components of the mix. Removing efflorescence may not prevent further formation of efflorescence at a later time without mitigating water migration within the substrate.
3 If water beads on the surface, the surface is contaminated. Apply a test treatment of detergent or caustic soda with a bristle brush to remove contamination. Retest. If water still beads, a penetrating water repellent may exist and will interfere with adhesion. Contact your Dow Technical Service Representative for further recommendations.

Table II: Estimated Application Rate[1] (10-mil [0.25 mm] minimum dry film thickness)

Surface Conditions	Estimated Rate	
	ft^2/gal	m^2/L
Smooth (brick, precast concrete)	70-80	1.7-2.0
Medium (sand, #3 vermiculite, stucco)	50-70	1.2-1.7
Coarse (aggregate, split face block, EIFS)	30-50	0.8-1.2

1 Application rates vary tremendously with porosity and degree of texture on the substrate. These values are estimated and should be confirmed at the job site prior to bidding the project.

Workmanship

- Protect adjacent surfaces and surroundings that are not to be coated.
- Apply a minimum of two coats to achieve a dry film thickness of ≥ 10 mils (0.25 mm).
- Follow design considerations.

Priming (if needed[1])

One coat of primer is required.

1. Apply at a rate of 300 ft²/gallon (7.4 m²/L) using a 1/2 to 3/4" (13- to 19-mm) synthetic nap roller, nylon bristle brush, or airless sprayer.
2. Apply primer to the point of rundown.
3. Dry 30 minutes to two hours. Actual drying time will depend on temperature, humidity, and wind conditions. Allow an additional 30 minutes to dry after dry to the touch.
4. Apply coating over primer at least 30 minutes after primer is dry to the touch, but within 24 hours. If the surface cannot be coated during this time, care should be taken to ensure the primed surface is free of dirt and debris before applying coating.

Coating

A minimum of two thick (10- to 12-mil) coats of DOWSIL™ AllGuard Silicone Elastomeric Coating are necessary to achieve the required 10-mil (0.25-mm) minimum dry film thickness to attain protection against through-water penetration and to qualify for a project- specific warranty.

Apply the coating in a minimum 10- to 12-mil (0.25-mm) wet thickness (see Table II for estimated application rates; a job-specific mockup is recommended to determine actual usage). Typically, two 10- to 12-mil (0.25-mm) wet coats will result in the required 10-mil (0.25-mm) dry coating thickness; however, an additional coat may be required due to surface texture or porosity. Apply using a 3/4 to 11/2" (19- to 38-mm) nap, polyester, or 50/50 polyester/wool blend roller cover, nylon bristle brush, or airless sprayer. When applying the coating with a roller, apply it in a fan pattern to achieve uniform thickness. Always finish roller applications in the same direction to reduce visual surface texture differences. When applying with an airless sprayer, follow the spray application with a back roll of material to ensure a uniform coating and appearance.

Allow the coating to dry (typically two to four hours) before applying the next coat.

Note: Do not thin or cut back DOWSIL™ AllGuard Silicone Elastomeric Coating.

Drying Time

After the final coat has been applied, the average drying time is 4 to 8 hours, depending upon temperature, humidity, and wind conditions. If the temperature drops below -6°C (20°F) after the coating is applied, the average drying time will increase. DOWSIL™ AllGuard Elastomeric Coating requires temperatures higher than -6°C (20°F) for a cumulative total of 24 hours to dry. DOWSIL™ AllGuard Silicone Elastomeric Coating will attain full adhesion and physical properties in seven to 14 days.

Low Temperature Application

If temperatures drop below -6°C (20°F), the coating will freeze on the surface until the temperature increases. This will not affect the cured properties of the coating, but will extend the drying time.

The coating should be dry to touch and not simply freeze between coats. Application equipment such as rollers and the tips of spraying equipment should be kept above 0°C (32°F) when not in use.

Disposal

See the Safety Data Sheet (SDS) for disposal information.

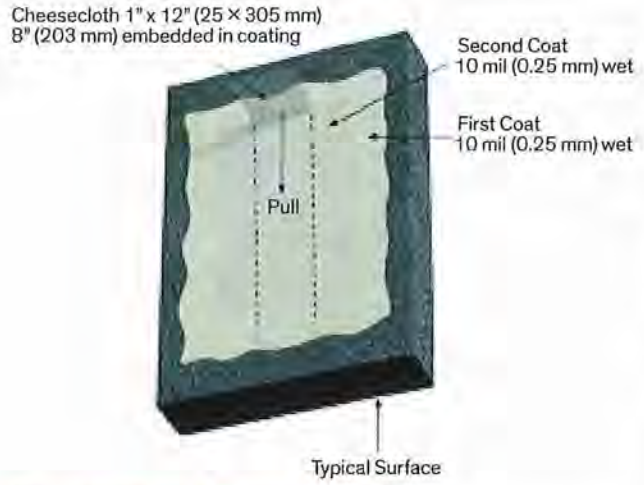
Adhesion Test Procedure

Field adhesion testing is recommended to ensure the coating is properly adhering to the substrates. Tests must be made on all sides and different substrates of the building being coated.

1. Prepare surfaces as described in Table I.
2. Use of a primer is optional, but testing is required to ensure sufficient adhesion in primerless applications. If primer is used, apply per the application method and allow to dry.
3. Apply the first coat of DOWSIL™ AllGuard Silicone Elastomeric Coating at a rate of 10- to 12-mil (0.25- to 0.31-mm) wet film thickness. Embed a cheesecloth strip (1" x 12" [25 x 305 mm]) in the wet coating with a paint brush.
4. Apply the second coat over the cheesecloth at the same 10- to 12-mil (0.25- to 0.31-mm) wet film thickness and allow to fully cure for 7 to 14 days. This is an adhesion test only; additional coats may be required to achieve thickness requirements.
5. Test adhesion of the coating by pulling the uncoated part of the cheesecloth at a 180° angle at a slow, steady rate.
6. Inspect and note the percent cohesive failure (percent of coating material left on the wall surface). At least 80 percent of the coating should remain on the substrate. If the 80 percent retention is not achieved, reclean and test another suitable section. If necessary, contact Dow Technical Service for further instruction. (Refer to Dow's web site, consumer.dow.com, for the location of the nearest Dow Technical Service facility.)
7. If adhesion cannot be achieved, the test should be repeated using DOWSIL™ AllGuard Primer.

[1] To determine if a primer is required, perform field adhesion tests as outlined on page 5 of this guide.

Figure 2: Test Procedure Diagram



Cleaning and Maintenance

1. Abrasive cleaners and cleaning equipment should never be used.
2. Routine cleaning is suggested, and dictated by the surrounding environment. Visible debris, such as airborne dirt or soot, should not be allowed to collect on the coating for a long period of time. This will increase cleaning effort and may be difficult to completely remove.
3. Recommended cleaning method involves the use of pressurized water and a basic cleaning agent such as trisodium phosphate (TSP) or Simple Green. Water pressure should not exceed 1,500 psi (10.3 MPa) to clean the surface without removing the coating material from the wall surface. A small test patch should be done first to determine how long the cleaning agent should be left on the surface before rinsing.
4. Stubborn marks may require the use of a soft bristle brush with the cleaning solution. Avoid stiff brushes that may abrade the coating.
5. Any touch-ups or repairs to the coating can be accomplished by applying DOWSIL™ AllGuard Silicone Elastomeric Coating to the clean, dry area according to the recommendations in this application guide.

Limited Warranty

Unless Dow issues a project-specific written warranty, Dow warrants only that the goods meet Dow sales specifications at the time of shipment. DOW EXPRESSLY DISCLAIMS ANY EXPRESS OR IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. The buyer's exclusive remedy and Dow's sole responsibility for any claim arising out of the purchase or use of these goods is expressly limited to either replacement of the nonconforming goods or refund of the purchase price within 90 days of the date of purchase.

Dow offers a project-specific 10-Year Limited Performance Warranty when the DOWSIL™ AllGuard Silicone Elastomeric Coating is applied in accordance with Dow's published application guidelines. Contact your Dow Sales Representative for details or to apply for a project-specific warranty. Under this Limited Warranty, for a period of ten years from the date of purchase, Dow will be responsible for the cost of replacement coating for any areas in which the DOWSIL™ AllGuard Silicone Elastomeric Coating fails to protect the above-grade substrate from through-water penetration and for the cost of labor to apply such replacement coating, up to a maximum of five times the cost of the replacement coating. Dow's warranty is subject to certain restrictions and does not cover faults attributable to workmanship or the appearance of the coating.

NOTE: No warranty is available when DOWSIL™ AllGuard Silicone Elastomeric Coating is used on a single-family residential dwelling.

Learn more

For more information about how Dow silicone solutions can help meet your high performance building needs, visit **consumer.dow.com/construction** or contact us at **consumer.dow.com/ContactUs**.

Images: Cover – dow_40355846371; Page 2 – dow_40766400183

HANDLING PRECAUTIONS

PRODUCT SAFETY INFORMATION REQUIRED FOR SAFE USE IS NOT INCLUDED IN THIS DOCUMENT. BEFORE HANDLING, READ PRODUCT AND SAFETY DATA SHEETS AND CONTAINER LABELS FOR SAFE USE, PHYSICAL AND HEALTH HAZARD INFORMATION. THE SAFETY DATA SHEET IS AVAILABLE ON THE DOW WEBSITE AT WWW.CONSUMER.DOW.COM, OR FROM YOUR DOW SALES APPLICATION ENGINEER, OR DISTRIBUTOR, OR BY CALLING DOW CUSTOMER SERVICE.

LIMITED WARRANTY INFORMATION – PLEASE READ CAREFULLY

The information contained herein is offered in good faith and is believed to be accurate. However, because conditions and methods of use of our products are beyond our control, this information should not be used in substitution for customer's tests to ensure that our products are safe, effective and fully satisfactory for the intended end use. Suggestions of use shall not be taken as inducements to infringe any patent.

Dow's sole warranty is that our products will meet the sales specifications in effect at the time of shipment.

Your exclusive remedy for breach of such warranty is limited to refund of purchase price or replacement of any product shown to be other than as warranted.

TO THE FULLEST EXTENT PERMITTED BY APPLICABLE LAW, DOW SPECIFICALLY DISCLAIMS ANY OTHER EXPRESS OR IMPLIED WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE OR MERCHANTABILITY.

DOW DISCLAIMS LIABILITY FOR ANY INCIDENTAL OR CONSEQUENTIAL DAMAGES.

30023848 Form No. 62-617-01 F

Devlac® 1437

Alkyd

PRODUCT DESCRIPTION

A premium quality low VOC alkyd gloss enamel for use on machinery, equipment, piping and tanks. Free of mercury, lead and chromate hazards.

INTENDED USES

Toughness and fast dry provide maintenance with minimum plant interruption.

Ideal for safety equipment and pipe identification. Provides exellent protection to metal surfaces in less demanding environments.

PRACTICAL INFORMATION FOR DEVLAC 1437

Color	White, custom and ready-mix colors
Gloss Level	High Gloss
Volume Solids	60% ± 2%
Typical Thickness	3.4-3.9 mils (84-97 microns) dry equivalent to 5.6-6.5 mils (140-162 microns) wet
Theoretical Coverage	264 sq.ft/US gallon at 3.6 mils d.f.t and stated volume solids 6.60 m²/liter at 91 microns d.f.t and stated volume solids
Practical Coverage	Allow appropriate loss factors
Method of Application	Airless Spray, Roller, Air Spray, Brush

Drying Time

			Overcoating Interval with recommended topcoats	
Temperature	**Touch Dry**	**Hard Dry**	*Minimum*	*Maximum*
50°F (10°C)	15 hours	23 hours	23 hours	Extended[1]
77°F (25°C)	4 hours	9 hours	9 hours	Extended[1]
104°F (40°C)	2 hours	5 hours	5 hours	Extended[1]

[1] See International Protective Coatings Definitions & Abbreviations

REGULATORY DATA

Flash Point (Typical)	115°F (46°C)	
Product Weight	11.0 lb/gal (1.32 kg/l)	
VOC	2.83 lb/gal (340 g/lt)	EPA Method 24

See Product Characteristics section for further details

Devlac® 1437

Alkyd

SURFACE PREPARATION

Surfaces must be dry, clean, free of oil, grease, form release agents, curing compounds, laitance, other foreign matter and be structurally sound. Remove all loose paint, mortar spatter, mill scale, and rust.

New Surfaces:

Steel
Apply over surface suitably prepared and primed with Devprime 1401, Devprime 1403, Devprime 1405, or Devprime 1407 primers.

Concrete, Plaster and Masonry:
Cure at least 30 days before painting. pH must be 10.0 or lower. Remove laitance and roughen unusually slick poured or pre-cast concrete by acid etching or abrasive sweeping. Follow acid manufacturer's application and safety instructions. Rinse thoroughly with water and allow to dry. Remove loose aggregate. For both interior and exterior masonry and concrete with Tru-Glaze-WB 4015 epoxy blockfiller.

Previously Painted Surfaces:

Wash to remove contaminants. Rinse thoroughly with water and allow to dry. Dull glossy areas by light sanding. Remove sanding dust. Remove loose paint. Scrub heavy chalk exterior areas and overhead areas such as eaves with soap and water. All existing mildew must be removed by washing with a solution of 16 oz. (473 ml) liquid household bleach and two oz. (59 ml) non ammoniated liquid detergent per gallon (3.785 L) of water. Rinse surfaces clean with water and allow to dry for 24 hours. Prime bare areas with primer specified under New Surfaces. Prime severely weathered exterior surfaces with Glidden Professional Stain Stomper 2110. Surfaces in good condition generally may be done with one coat.

APPLICATION

Mixing	This material is a one component coating and should always be mixed thoroughly with a power agitator before application.	
Airless Spray	Suitable	Use a 13 thou (0.33mm) tip size and adjust pressure as needed.
Brush	Recommended	
Roller	Recommended	
Thinner	Do not thin	
Cleaner	Mineral spirits or VM&P Naphtha in accordance with local VOC regulations	
Work Stoppages	Do not allow material to remain in hoses, gun or spray equipment. Thoroughly flush all equipment with mineral spirits or VM&P Naphtha. Partially filled containers may show surface skinning and/or a viscosity increase of the material after storage.	
Clean Up	Clean all equipment immediately after use with mineral spirits or VM&P Naphtha. It is good working practice to periodically flush out spray equipment during the course of the working day. Frequency of cleaning will depend upon amount sprayed, temperature and elapsed time, including any delays. All surplus materials and empty containers should be disposed of in accordance with appropriate regional regulations/legislation.	

Devlac® 1437

Alkyd

PRODUCT CHARACTERISTICS

Advantages:

- Durable high gloss finish
- High solids and low VOC
- Interior or exterior usage
- Protects against atmospheric corrosion
- Excellent flow and leveling
- High hiding
- Washable and scrubbable
- Good abrasion resistance
- Easy application by brush, roll or spray
- Excellent resistance to grease, oil and water

For best opacity, tint primers toward finish coat color. Certain shades of yellow, orange, pink and red may require multiple coats.

Important: Alkyd or oil-based enamels may yellow in time in the absence of light, especially sunlight.

Do not apply if temperature is less than 40ºF (4°C), relative humidity exceeds 85% or temperature is within 5ºF (3°C) of the dew point.

Surfaces coated with this product may become slippery when wet. For additional slip resistance in areas of pedestrian traffic, add one pound per gallon of coarse pumice or other texturing material.

When applying Devlac 1437 by brush or roller, it may be necessary to apply multiple coats to achieve the required film build and uniform opacity.

Note: VOC values are typical and are provided for guidance purpose only. These may be subject to variation depending on factors such as differences in color and normal manufacturing tolerances.

SYSTEMS COMPATIBILITY

The following primers are recommended for Devlac 1437:

Devprime 1401
Devprime 1403
Devprime 1405
Devprime 1407
Devprime 1409

Devlac® 1437

Alkyd

ADDITIONAL INFORMATION

Further information regarding industry standards, terms and abbreviations used in this data sheet can be found in the following documents available at www.international-pc.com:

- Definitions & Abbreviations
- Surface Preparation
- Paint Application
- Theoretical & Practical Coverage

Individual copies of these information sections are available upon request.

SAFETY PRECAUTIONS

This product is intended for use only by professional applicators in industrial situations in accordance with the advice given on this sheet, the Material Safety Data Sheet and the container(s), and should not be used without reference to the Material Safety Data Sheet (MSDS) which International Protective Coatings has provided to its customers.

All work involving the application and use of this product should be performed in compliance with all relevant national, Health, Safety & Environmental standards and regulations.

In the event welding or flame cutting is performed on metal coated with this product, dust and fumes will be emitted which will require the use of appropriate personal protective equipment and adequate local exhaust ventilation.

If in doubt regarding the suitability of use of this product, consult International Protective Coatings for further advice.

PACK SIZE	Unit Size	Vol	Pack
	1 US gal	1 US gal	1 US gal
	5 US gal	5 US gal	5 US gal
	For availability of other pack sizes contact International Protective Coatings		
SHIPPING WEIGHT (TYPICAL)	Unit Size		
	1 US gal	11 lb	
	5 US gal	54 lb	
STORAGE	Shelf Life	24 months minimum at 77°F (25°C). Subject to re-inspection thereafter. Store in dry, shaded conditions away from sources of heat and ignition.	

Disclaimer

DULUX DIAMOND EXTERIOR 100% ACRYLIC PAINT 1650

Water based product, semi-gloss finish

Technical Data Sheet

Technical Specifications (21°C (70°F))

Solids by Volume – 39% (+/- 1%)
Solids by Weight – 48% (+/- 1%)

Volatile Organic Compounds (VOCs)*

According to ASTM D3960-05: < 150 g/L
Canadian regulation: < 150 g/L

Colour

White, medium and ultra deep bases

Gloss Level **Semi-gloss finish**

- Gloss @ 60°: 40 - 60%
- Sheen @ 85°: 70 – 90%* *Typical sheen @ 85°

Practical Coverage

380 - 420 sq. ft. per 3.78 litres
9 - 10 sq. metres per litre
(Actual coverage will vary depending on substrate and application method.)

Resin Type

- 100% Acrylic

Viscosity* Ready to use (94 - 104 Krebs Units)

Flammability Non Flammable

Flash Point* N/A

Recommended Film Thickness*

- Wet: 4 mils
- Dry: 1.6 mils

Drying Time* @ 77°F/25°C - 50% Relative Humidity

**Drying & recoat times are dependent on temperature, humidity, ventilation and film thickness*

Touch dry:	1 hour
To recoat:	4 - 6 hours
Before cleaning:	7 – 10 days

*Technical Data Source: 1650

Product Description

Dulux Diamond Exterior Semi-gloss 1650 is formulated to provide a beautiful and durable finish that withstands the ever-changing Canadian weather.

Dulux Diamond Exterior Semi-gloss 1650:

- Extends the painting season with application temperatures as low as 2°C /30°F
- Self priming on recommended surfaces
- Ceramic Microspheres and 100% Acrylic resin result in an exceptionally durable surface
- Semi-Elastomeric Acrylic Latex grips the most challenging of surfaces and resists cracking and peeling
- Repellent polymer technology stops dirt and water penetration while still allowing the coating to breath
- "Easy flow" modifiers result in excellent flow and leveling, with no brush or drag marks
- Contains an effective fungicide to protect the paint film from growth of mildew on the surface

Intended Uses

- New and maintenance work
- Residential and Commercial sites
- Exterior doors, trim and walls
- New and previously painted wood, concrete, masonry, brick, stucco, pre-finished aluminum, vinyl siding, and metal

Edition of January 2012

Available at Dulux Paints Stores across Canada and Betonel-Dulux Stores in Québec

SURFACE PREPARATION
All surfaces must be clean, dry and free of dirt, chalk, grease, wax, rust and loose or peeling paint before painting. Remove all surface contaminants by washing with an appropriate cleaner. Rinse thoroughly with water and allow dry time.

- Scrub heavy chalk areas and overhead areas such as eaves with soap and water.
- Mildew must be removed by washing affected area with a solution of 30% household bleach and 70% water. Rinse well.
- Remove all loose and peeling paint and sand to smooth edges.
- Repair holes and cracks with filler suitable for the surface to be repaired.
- If wood exudes resin, scrape the excess and clean surface with alcohol or paint thinner.
- Sand all surfaces smooth, lightly sand glossy areas and sand weathered wood to a new wood appearance. Vacuum sanding residue. *Precaution:* Dry sanding, flame cutting and/or welding of dry paint film will give rise to dust and/or hazardous fumes. Wet sanding should be used wherever possible. If exposure cannot be avoided by the provision of local exhaust ventilation, suitable respiratory protective equipment should be used.
  New Concrete, Masonry or Plaster: must age at least 30 days and be thoroughly dry before painting.
  Bare Wood: sand smooth.

Application
Ready-to-use product, do not thin.
Mix thoroughly before use.
Apply using brushes, rollers or spray equipment.
Application Conditions
Apply with good ventilation. Ensure air, material and surface temperatures are above 30°F (2°C). Do not apply if rain, snow or heavy dew is expected within 48 hours. Avoid painting in direct sunlight.

Tools

- Brush – synthetic bristles (nylon, polyester)
- Lint free roller – 15 - 30 mm
- Spray (Airless equipment) – tip size:0.013 to 0.019 in - Pressure: 2300 – 2700 psi
  *Spray recommendations may vary from figures listed depending on equipment manufacturer

Clean-up Clean hands and tools immediately with warm, soapy water. Clean spills right away with a damp cloth.

SYSTEM RECOMMENDATIONS

Two topcoats are recommended on all surfaces for better durability and appearance.

Previously painted surfaces:
Surfaces in good condition
• No primer required
• Dulux Diamond 1650
Repaired surfaces
• Dulux WeatherGuard Acrylic Primer 1535 OR Dulux Diamond 1650 may be used self-priming, as a primer coat under itself - one coat (bare areas or total surface)
• Dulux Diamond 1650
Weathered Aluminum and Vinyl Siding
• Dulux WeatherGuard Acrylic Primer 1535 OR Dulux Diamond 1650 may be used self-priming, as a primer coat under itself - one coat (bare areas or total surface)
• Dulux Diamond 1650
Do not repaint vinyl siding with colours darker than the original colour, the siding may warp
Aged alkyd surfaces
• Dulux Gripper– one coat over total surface
• Dulux Diamond 1650
Wood, concrete, stucco or masonry:
• Dulux WeatherGuard Acrylic Primer 1535 OR Dulux Diamond 1650 may be used self-priming, as a primer coat under itself – one coat over total surface
• Dulux Diamond 1650
Slight discoloration on redwood or cedar is normal. If the staining is considerable prime with Dulux Gripper – 1 coat
Ferrous Metal:
• Dulux Metalclad Red Oxide Anti-corrosion Coating – one coat over total surface
• Dulux Diamond 1650
Non Ferrous and Galvanized Metal:
• Dulux WeatherGuard Acrylic Primer 1535– one coat over total surface
• Dulux Diamond 1650

Storage and Transportation
Keep product cool and dry.
DO NOT FREEZE

Disposal
Consult your municipality about proper disposal procedures in accordance with the laws and respect the environment or give leftover paint to someone who could use it: a neighbor or friend, a recreational service or a non-profit organization. Do not pour leftover product down the drain.

Safety Measures
Read the Material Safety Data Sheet. Avoid contact with eyes. Keep out of reach of children. Use only in well ventilated areas.
FIRST AID TREATMENT: If in contact with eyes, rinse thoroughly with clear water. If swallowed, do not induce vomiting. Call poison centre or physician immediately.

For product information call: 1-(800)-387-3663
www.dulux.ca

This technical data sheet, No. 1650, replaces all earlier versions. Edition of January 2012

DULUX METALCLAD ANTI-RUST PAINT 218400 SERIES

Solvent-based product, gloss finish

Technical Data Sheet

Technical Specifications (21°C (70°F))

Solids by Volume – 49% (+/- 1%)
Solids by Weight – 65% (+/- 1%)

Volatile Organic Compounds (VOCs)*

According to ASTM D3960-05: < 400 g/L
Canadian regulation: < 400 g/L

Colour

White, medium and ultra deep bases

Pre-mixed colours: Oxford Brown 218404, Marine Blue 218412, Safety Yellow 218413, Forest Green 218414, Safety Red 218419, Safety Orange 218427, Black 218420, Flat Black 218421

Gloss Level	**Gloss Finish**
• Gloss @ 60° - 85 - 100%	

Practical Coverage

430 - 520 sq. ft. per 3.78 litres
11 - 13 sq. metres per litre
(Actual coverage will vary depending on substrate and application method.)

Resin Type

• Alkyd

Viscosity*	Ready to use (78 - 88 Krebs Units)
Flammability	Combustible Liquid
Flash Point*	42°C (108°F)

Recommended Film Thickness*

• Wet: 3.2 mils
• Dry: 1.6 mils

Drying Time* @ 77°F/25°C - 50% Relative Humidity

**Drying & recoat times are dependent on temperature, humidity, ventilation and film thickness*

Touch dry:	6 hours
To recoat:	16 hours
Before cleaning:	30 days

*Technical Data Source: 218400

Product Description

Dulux Metalclad 218400 is a premium quality, interior/exterior, urethane fortified paint formulated to form a protective coating on metal that will retard and resist rust.

Dulux Metalclad 218400:

- Excellent durability
- Superior leveling properties
- Self priming on ferrous metal
- Dries quickly to a uniform gloss finish
- Lead and mercury free
- Excellent protection against corrosion
- Excellent moisture resistance

Intended Uses

- Interior/exterior new and maintenance work
- Residential and Commercial sites
- Metal surfaces only
- New or rusted ferrous metal: furniture, doors, windows, fences, roofs, stairs, machinery, ornamental iron, pipes fire-hydrants etc.
- Pre-mixed colours can be used on marine equipment (above the waterline)

July 2014

Available at Dulux Paints Stores across Canada and Betonel-Dulux Stores in Québec

SURFACE PREPARATION

All surfaces must be clean, dry and free of dirt, chalk, grease, wax, rust and loose or peeling paint before painting.

- Mildew must be removed by washing affected area with a solution of 30% household bleach and 70% water. Rinse well.
- Remove all loose and peeling paint and sand to smooth edges.
- Remove all rust, oil and grease. Wash well with mineral spirits and dry with clean rags
- Sand all surfaces smooth and lightly sand glossy areas. Vacuum sanding residue. *Precaution:* Dry sanding, flame cutting and/or welding of dry paint film will give rise to dust and/or hazardous fumes. Wet sanding should be used wherever possible. If exposure cannot be avoided by the provision of local exhaust ventilation, suitable respiratory protective equipment should be used.

Application

Ready-to-use product, do not thin.
Mix thoroughly before use.
Keep containers closed when not in use.
Apply using brushes, rollers or spray equipment.

Application Conditions

Apply with good ventilation. Ensure air, material and surface temperatures are above 50°F (10°C) within 3 to 6 hours of painting. Ideal relative humidity 15 – 50%, maximum 85%
Do not apply if rain, snow or heavy dew is expected within 16 hours. Avoid painting in direct sunlight.

Tools

- Brush – natural bristle
- Roller – 10–15 mil
- Spray (Airless equipment) – tip size:0.013 to 0.019 in - Pressure: 2300 – 2700 psi

**Spray recommendations may vary from figures listed depending on equipment manufacturer*

SYSTEM RECOMMENDATIONS

Two topcoats are recommended on all surfaces for better durability and appearance.

Ferrous Metal:
• Dulux Metalclad 218400 series or one coat of Dulux Metalclad Red Oxide Rust Preventive Coating 218490
• Dulux Metalclad 218400 series

Non Ferrous Metal:
Interior (dry environments)
• Dulux Metalclad 218400 series or one coat of Dulux Metalclad Red Oxide Rust Preventive Coating 218490
• Dulux Metalclad 218400 series

Exterior
•1st coat Devguard 4360 – one coat
• Dulux Metalclad 218400 series

***Devguard 4360* is intended for use only by professional applicators in accordance with the advice given on this sheet, the MSDS and the container(s), and should not be used without reference to the MSDS.**

Clean-up

Clean hands and tools immediately with mineral spirits.

Storage and Transportation

Keep product in a dry and ventilated area, between 10 - 30°C (50 – 86°F).
DO NOT FREEZE

Disposal

Consult your municipality about proper disposal procedures in accordance with the laws and respect the environment or give leftover paint to someone who could use it: a neighbor or friend, a recreational service or a non-profit organization. Do not pour leftover product down the drain.

Safety Measures

Read the Material Safety Data Sheet. Avoid contact with eyes. Keep out of reach of children. Use only in well ventilated areas. Do not intentionally breathe vapour. Keep away from flames or sparks.
FIRST AID TREATMENT: If in contact with eyes, rinse thoroughly with clear water. If swallowed, do not induce vomiting. Call poison centre or physician immediately.

For product information call: 1-(800)-387-3663
www.dulux.ca

TREMCO®
Commercial Sealants & Waterproofing

Dymonic® 100

High-Performance, High-Movement, Single-Component, Polyurethane Sealant

Product Description

Dymonic® 100 is a high-performance, high-movement, single-component, medium-modulus, low-VOC, UV-stable, non-sag polyurethane sealant.

Basic Uses

Dymonic 100 is a durable, flexible sealant that offers excellent performance in moving joints and exhibits tenacious adhesion once fully cured. Typical applications for Dymonic 100 include expansion and control joints, precast concrete panel joints, perimeter caulking (windows, doors, and panels), aluminum, masonry and vinyl siding. Dymonic 100 is also an excellent choice as a fluid applied flashing material in rough opening perimeters for fenestration/window, door and curtain wall applications.

Features and Benefits

- Can adhere to damp or green concrete and has a skin time of 2 hr with a tack-free time of 6 to 8 hr to significantly reduce dirt attraction.
- Movement capability of +100/-50% in typical field conditions, is low VOC, paintable, jet fuel-resistant, and will not crack, craze or yellow under extreme UV exposure.
- Suitable for water immersion and will not out gas.
- Formulated with an innovative polymer technology, similar to TREMproof® 250GC and Vulkem® 45SSL, Dymonic 100 is highly versatile and has a unique capability to adhere to damp or green concrete and will not out gas.
- Compatible and can be coated over with Tremco's Vulkem Deck Coatings, ExoAir® Air Barrier products and the cold, fluid-applied TREMproof® line of below-grade waterproofing products.

Availability

Dymonic 100 is immediately available from your local Tremco Sales Representative, distributor, or warehouse.

Coverage Rates

308' of joint per gallon for a 1/4" x 1/4" (6 mm x 6 mm) joint. For specific coverage rates that include joint size, and usage efficiencies, visit our website usage calculator at www.tremcosealants.com

Packaging

- 10.1-oz (300-mL) cartridges
- 20-oz (600-mL) sausages

Colors

Almond, Aluminum Stone, Anodized Aluminum, Beige, Black, Bronze, Buff, Dark Bronze, Gray, Gray Stone, Hartford Green, Ivory, Light Bronze, Limestone, Natural Clay, Off White, Precast White, Redwood Tan, Sandalwood, Stone, and White.

Shelf Life

1 year when stored at 40 to 110 °F (5 to 43 °C)

Storage

Store Dymonic 100 in original, undamaged packaging in a clean, dry, protected location with temperatures between 40 to 110 °F (5 to 43 °C).

Applicable Standards

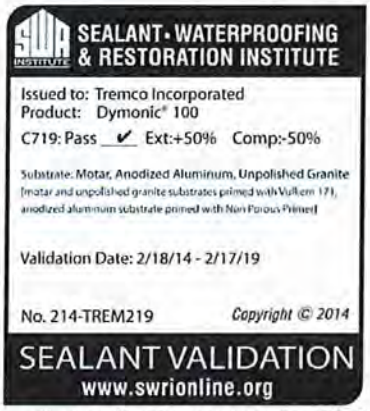
- Dymonic 100 meets or exceeds the requirements of the following specifications:
- ASTM C920 Type S, Grade NS, Class 50, Use NT, T, M, A, O, I
- U.S. Federal Specification TT-S-00230C, Class A, Type II
- CAN/CGSB-19,13-M87
- International Code Council (ICC) Section R703.8 Flashing
- AAMA 714-15 Specification for Liquid-Applied Flashing
- NFPA 285 Listed Component

Fire Rated Systems

FF-D-1186, FW-D-1117, HW-D-1122, WW-D-1200, and BW-S-0006

Limitations

- Use with adequate ventilation.



- Always utilize the accompanying MSDS for information on Personal Protective Equipment (PPE) and Health Hazards.
- Not recommended for use in chlorinated, potable, heavy or waste water.
- Although Dymonic 100 is paintable, this does not imply adhesion to and compatibility with all paints. Consult Tremco Technical Bulletin No. S-09-05 for more information.

Substrate Preparation

Surfaces must be sound and clean. All release agents, existing waterproofing, dust, loose mortar, paints, other finishes or field applied coating must be removed. This can be accomplished with a thorough wire brushing, grinding, sandblasting, or solvent washing, depending on the contamination.

Tremco recommends that surface temperatures be 40 °F (5 °C) or above at the time the sealant is applied. If sealant must be applied in temperatures below 40 °F, please refer to the Tremco Technical Bulletin for Applying Sealants in Cold Conditions (No. S-08-44 rev 1) that can be found on our website at www.tremcosealants.com

Priming

Dymonic 100 typically adheres to common construction substrates without primers; anodized aluminum may require the use of primer. However, Tremco always recommends that a mock-up or field adhesion test be performed on the actual materials being used on the job to verify the need for a primer, proper cleaning and prep requirements. A description of the field adhesion test can be found in appendix X1 of ASTM C1193, Standard Guide for Use of Joint Sealants.

Where deemed necessary, use Vulkem® Primer #191 Low-VOC on porous substrates and TREMprime® Non-Porous Primer for metals or plastics.

Application

Dymonic 100 is easy to apply with conventional caulking equipment. Ensure that the backer rod is fitted properly for friction and that any necessary primers have been applied.

Fill the joint completely with a proper width-to-depth ratio, and then tool to ensure intimate contact of sealant with joint substrates.

Dry tooling is always preferred, although compatible wetting agents can be used in limited amounts to slick the spatula if needed after an initial pass.

For a cleaner finish, mask the sides of the joint with tape prior to filling.

Joint Design

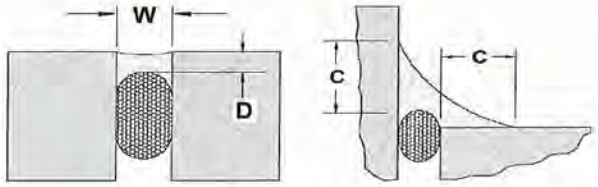
Dymonic 100 may be used in vertical or horizontal joints designed in accordance with accepted architectural/engineering practices. Joint width should be 4 times anticipated movement but not less than 1/4" (6 mm).

Joint Backing

Polyethylene backer rod is recommended as joint backing to control sealant depth and ensure intimate contact of sealant with joint substrate when tooling. Where depth of joint will prevent the use of backer rod, an adhesive backed polyethylene tape (bond breaker tape) should be used to prevent three-sided adhesion. All backing should be dry at the time of sealant application.

Sealant Dimensions

W = Sealant width, D = Sealant depth, C = Contact area.



Expansion Joints- The minimum width and depth of any sealant application should be 1/4" x 1/4" (6 mm x 6 mm). The depth (D) of sealant may be equal to width (W) of joints less than 1/2" wide. For joints from 1/2" to 1" (13 mm to 25 mm) wide, the sealant depth should be approximately one-half of the joint width. The maximum depth (D) of any sealant application should be 1/2" (13 mm). For Joints that are wider than 1" (25 mm) contact Tremco Technical Services or your local Tremco Sales Representative.

Window Perimeter- For fillet beads, or angle beads around windows and doors, the sealant should exhibit a minimum surface contact area [C] of 1/4" (6 mm) onto each substrate, with provisions for release at the heel of the angle using backer rod or bond breaker tape.

Cure Time

Dymonic 100 generally cures at a rate of 3/32" per day at 75 °F (24 °C) and 50% RH. It will skin in 2 hr and be tack free in 6 to 8 hr. The cure time will increase as temperatures and/or humidity decrease. A typical rule of thumb is one additional day for every 10 °F decrease in temperature.

Clean Up

Excess sealant and smears adjacent to the joint interface can be carefully removed with xylene or mineral spirits before the sealant cures. Any utensils used for tooling can also be cleaned with xylene or mineral spirits.

Warranty

Tremco warrants its Products to be free of defects in materials, but makes no warranty as to appearance or color. Since methods of application and on-site conditions are beyond our control and can affect performance, Tremco makes no other warranty, expressed or implied including warranties of MERCHANTABILITY and FITNESS FOR A PARTICULAR PURPOSE with respect to Tremco Products. Tremco's sole obligation shall be, at its option, to replace or refund the purchase price of the quantity of Tremco Products proven to be defective, and Tremco shall not be liable for any loss or damage.

Please refer to our website at www.tremcosealants.com for the most up-to-date Product Data Sheets.

NOTE: All Tremco Safety Data Sheets (SDS) are in alignment with the Globally Harmonized System of Classification and Labelling of Chemicals (GHS) requirements

TYPICAL PHYSICAL PROPERTIES

PROPERTY	TEST METHOD	TYPICAL VALUES
Type		Single component polyurethane sealant
Color		21 Standard Colors
Solids		98%
Specific Gravity		1.3302
Application		gun-grade sealant, applied with typical caulking equipment
Rheological Properties	ASTM C639	non-sag (NS), 0" of sag in channel
Hardness Properties	ASTM C661	40 +/-5
Weight Loss	ASTM C1246	Pass
Skin Time	ASTM C679	2 to 3 hr
Tack Free Time	73.4°F (23°C) 50% RH	6 to 8 hr
Stain and Color Change	ASTM C510	Pass
Adhesion to Concrete	ASTM C794	35 pli
Adhesion to Concrete After Immersion	ASTM C794	30 pli
Adhesion to Green Concrete	ASTM C794	>25 pli
Adhesion to Damp Concrete	ASTM C794	>20 pli
Effects of Accelerated Aging	ASTM C793	Pass
Movement Capability	ASTM C719	+/-50%
Movement Capability	ASTM C719* Modified	+100/-50%
Tensile Strength	ASTM D412	350 to 450 psi
% Elongation	ASTM D412	800 to 900%
Modulus at 100%	ASTM D412	75 to 85 psi
Tear Strength	ASTM D412	65 to 75 psi
Service Temperature		-40 to 180 °F (-40 to 82 °C)
Application Temperature		40 to 100 °F (4 to 37 °C) *
Smoke Development	ASTM E84	5
Fire Spread	ASTM E84	5
Fire Resistance of Assembly	NFPA 285	PASS
Smoke Development	CAN S102	10
Fire Spread	CAN S102	10
Crack Bridging	ASTM C1305	PASS
Nail Sealability	ASTM D1970 Section 7.9	PASS

*For temperatures below 40 °F, please refer to the Technical Bulletin, Cold Temperature Sealant Application Recommendations.

Tremco Commercial Sealants & Waterproofing

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Beachwood OH 44122
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Toronto ON M4H1G7
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1445 Rue de Coulomb
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www.tremcosealants.com

TREMCO®
Commercial Sealants & Waterproofing

Vulkem® 350NF/351NF

Neighbor-Friendly Pedestrian and Waterproofing System

Product Description

Vulkem® 350NF/351NF is a composite waterproofing system comprised of tough-curing liquid polyurethane. It cures to form a rubber membrane surface that provides a lasting and easy-to-clean coating. Textured surfaces for pedestrian traffic will use an aggregate-laden top membrane to aid in wear and slip resistance. Vulkem 350NF/351NF may be used to apply a seamless, monolithic waterproof membrane to concrete, well-anchored AC plywood, and primed metal surfaces.

Vulkem 350NF Base Coat is a single-component, low odor, low VOC, urethane membrane that bonds firmly to clean, dry concrete, plywood and metal. It retains its integrity even if substrate movement causes hair-line cracks of up to 1/16" (1.5 mm). If cut or damaged, Vulkem 350NF will prevent water migration between itself and the substrate. Vulkem 350NF is available in roller (R) and in self-leveling (SL) grade for vertical and horizontal application.

Vulkem 351NF Top Coat is an aliphatic, low VOC, two-component, polyurethane, which when used in conjunction with the recommended aggregate, creates a tough, aesthetically appealing, skid resistant, wearing surface that forms a strong interlaminate bond to the Vulkem 350NF basecoat.

Basic Uses

Vulkem 350NF/351NF is ideal for plazas, recreation decks, balconies, mechanical rooms, stadiums, athletic surfaces and similar applications requiring an elastomeric waterproofing system.

Features and Benefits

- Fast cure through time allows for use 24 hr after installation.
- Low odor and low level of Volatile Organic Compounds (VOC) allow for use in neighbor friendly, inhabited structures.
- Mildew- and fungus- resistance safeguards concrete surfaces against environmental contaminants.
- Excellent durability and UV resistance extend the useful life of pedestrian systems.
- Recoatable and compatible with other Tremco sealants, which enhances waterproofing protection with full system compatibility.

Availability

Immediately available from your local Tremco Sales Representative, Tremco distributor, or warehouse.

Packaging

Vulkem 350NF: 5-gal (18.9-L) pails, 55-gal (208.2-L) drums

Vulkem 351NF: Part A 5-gal (18.9-L) pails, Part B 12-oz (.36-L) can

Colors

Vulkem 351NF is available in Beige, Gray, Slate Gray, and Limestone. Special colors are available upon request.

Installation

Concrete shall be water-cured and attain a 3000 psi minimum compressive strength. Concrete finish shall be a light steel trowel followed by a fine-hair broom, or equivalent ICRI #2-#4 finish. Moisture content in the concrete must be lower than 4.5% as measured using a Tramex CME 4 Moisture Meter. Depending on concrete construction and job site location, additional concrete testing may be required. Please contact your local Tremco Sales or Technical Representative.

Please refer to the Vulkem 350NF/351NF Application Instructions for complete application details. The techniques involved may require modification to adjust to the jobsite conditions. Consult your Tremco Sales Representative or Tremco Technical Services for site conditions and requirements.

Fire Rated Assemblies

- ANSI/UL790 - Standard Test Methods for Fire Tests of Roof Coverings
- CAN/ULC-S107 - Methods of Fire Tests of Roof Coverings

Limitations

- Do not apply to damp or contaminated surfaces.
- Use with adequate ventilation.

Warranty

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TYPICAL PHYSICAL PROPERTIES

PROPERTY	TEST METHOD	VULKEM 350NF	VULKEM 351NF
Flash Point	Set-A-Flash	>160 °F (71 °C)	> 200 °F (> 93 °C)
% Solids (by Weight)	ASTM D1353	90 to 98%	95%
Drying Time @ 75 °F, 50% RH	ASTM D1640	40 mil film, 6 to 8 hr	15 mils, 8 to 16
Open to foot traffic		4 to 6 hr	24 hr after cure
Weathering	ASTM D822	N/A	No effect
Salt Spray	ASTM B117	N/A	No effect
Viscosity	Brookfield C&P	4000 to 6000 cps	2000 to 3000 cps
Elongation	ASTM D412	600 to 700%	130%
Tensile Strength	ASTM D412	220 to 460 psi	2600 psi
Hardness (Shore A)	ASTM D2240	45 to 60	90
Adhesion (Peel Strength)	ASTM D903	Unprimed Concrete, 20 to 30 pli, 100% cohesive failure	100% cohesive failure
Adhesion (Pull-Off)	ASTM D4541	200 to 400 psi	200 to 400 psi
Accelerated Aging	ASTM D573	No loss of elongation or tensile strength	No loss of elongation or tensile strength

* Accelerated aging test. 1 daily cycle of UV and water spray greatly exceeds 1 day of real world exposure. Contact Tremco Technical Service or your local sales representative for more information.

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Spectrum Painting Ltd.

Quality & Service

4157 Grandview Highway
Burnaby, B.C.
V5C 4J1

Tel: (604)437-9150
Fax: (604)437-9155
spectrumpainting@telus.net

Product /Color - Schedule

Project Name: Chateau Comox
Project Supplier(s):
Dulux Paint 1609 Boundary Road, Vancouver 604 299 1399
Cascade Aquatech (Sealants) 3215 Norland Ave, Burnaby 604 291 6101
International Paints 7885 N Fraser Way, Burnaby 604 291 8242

Please see below colors and finishes used on project:

Manufacturer	Color Name	Finish	Location
International	Chateau Comox White	Devlac 1437 Alkyd	Rooftop flashings
Dulux Paint	Cloverdale "Cardigan" CA200	Diamond Semi gloss Latex	Main walls with latex
Dow (cascade aquatech)	Cardigan CA200	Allguard Silicone Elastomeric Coating	South walls with silicone coating
International	Match to charcoal (Chateau Grey (1437 HSC) GVA 902 P3, 1/64-40,1/128 - 0 GVA 906 P0, 1/64 -6. 1/128 -0, GVA908 P0, 1/64-4, 1/128-0, GVA909P2, 1/64-40,1/128-0, GVA905P5, 1/64-20,1/128-0 1437 S9502 Ultra De Gallon	Devlac 1437 Alkyd	Railings

Kind Regards
Adam Racanelli

Project : :Chateau Comox

Component	Review	Action	Timing	Date of Review	Reviewed By	Condition/Comments / Weather Condition	Action Taken / Costs of Work	Who Performed The Work
Section 07 54 00 Liquid Applied Membrane	▪ Review condition of exterior surface in accordance with manufacturers written instructions.	Clean all exterior concrete surfaces in accordance with manufacturer's written instructions.	Annually					
Section 07 92 13 Building Envelope Sealants	Review condition of ▪ Cracking ▪ Loss of Adhesion ▪ Bulging ▪ Poor Elasticity	Localized replacement of sealant as required.	Annually					
Section 09 96 53 Elastomeric Coating Section 09 91 13 Exterior Painting	▪ Review Exterior condition ▪ cleaning of surfaces ▪ worn areas ▪ dirty areas	clean dirty area repainting as neccessary	Annually					

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Warranty Statement

Date of substantial completion : Oct 1, 2019
Project Name: Chateau Comox 1272 Comox Street, Vancouver, Building Envelope

To whom it may concern , please be advised that we were the contractor for the above captioned project. We guarantee our work to be free from defects for a period of 2 year from date of substantial completion.

Please note, this warranty is valid following the circumstances that normal cleaning and maintenance procedures are followed, and excludes changes due to wear, tear, normal weathering and defects that result from characteristics common to the materials used such as fading, chalking, checking of paint / sealant from exposure to sunlight, cracks that occurred during the drying of any substrate, shrinking / crackling of caulking. Damage by others is not covered under this warranty. Also, this warranty excludes any work not involving original contract.

Kind Regards
Adam Racanelli

CARE & MAINTENANCE OF LATEX
EXTERIOR PAINT

Latex paints in a lower sheen level like eggshell, satin and flat have created problems for homeowners for cleaning or washing walls.

Lower sheen products have pigment close to the surface and when cleaned improperly may burnish or become shiny. This is non-repairable other than repainting.

You could avoid this problem if you take the time to properly clean latex painted walls.

1. Do not attempt to wash substrate prior to latex paint curing (30 days after application)

2. Always use a mild liquid detergent with no abrasives, ie. dish soap

3. Where mildew is present, the area will be scrubbed down with bleach and water
   Solution – (1) pint liquid bleach, per (1) gallon water

4. Apply liquid detergent onto a soft sponge - not cloth, as they act like an abrasive

5. Gently massage the detergent into the soiled area, allowing the detergent to attack the soiled area

6. Once soiled area is clean, rinse sponge out and wipe area gently with clean moist sponge

If you use this style of cleaning you will reduce burnishing by 90 to 95%.

Seriously soiled areas may require a stronger cleaner (ie. Fantastic) but similar cleaning procedures should be followed.

Tremco Incorporated
3735 Green Road • Beachwood, Ohio 44122 • 216-292-5000

Technical Service Bulletin No. S-11-05

Tremco Sealant Maintenance Instructions

When installed properly, the chemical composition of a silicone and polyurethane sealants will provide performance for many years with out the need for replacement. However, it may be required to clean or repair the surface due to environmental conditions or mechanical or other damage. The following can be use as a guideline for cleaning and/or repairing the surface of the Tremco sealant.

Cleaning

If it is necessary to clean the surface of the sealant, the following should be considered:

- The sealant and adjacent substrate surfaces can be power washed.
- Proper protection of other building components should be considered prior to power washing.
- Pressures up to 2000 psi are acceptable.
- Allow a minimum of 12" between nozzle and sealant/substrate surface.
- Continually move nozzle as to not concentrate on any one area too long. This could cause surface damage of the sealant or substrate.

Repairing

If it is found necessary to repair the sealant the following should be considered:

- Sealant is performing properly, but aesthetically not tooled properly or completely, or slightly damaged on the surface
  - Clean surface of silicone sealant with isopropyl alcohol and the surface of a urethane sealant with xylene in order to remove any surface contaminants utilizing the two rag wipe method, and allow solvent to dry
  - Protect adjacent substrate by taping
  - Apply a thin bead of fresh sealant over the cleaned cured bead
  - Dry tool the sealant
  - Remove masking

- Sealant is damaged and needs to be removed and replaced
  - Remove damaged area by cutting out sealant.
  - If sealant is still well adhered to substrate, it is acceptable to allow existing sealant to remain in joint and simply remove the damaged portion utilizing a v-cut. Follow instructions above to install additional sealant in joint
  - If adhesion to substrate is unacceptable, mechanically remove existing sealant cleanly from joint.
  - Clean and prime as deemed appropriate.
  - Protect adjacent substrate by taping
  - Apply a thin bead of fresh sealant over the cleaned cured bead
  - Dry tool the sealant
  - Remove masking
  - Check adhesion after sealant has cured (Cure depends on temperature & humidity, a minimum of 14 days is acceptable)

Please contact Tremco Technical Service at 866-209-2404 with any questions regarding this bulletin.

MAT 01/11