

Product Information

High Performance Building

DOW CORNING

Dow Corning® DefendAir 200

FEATURES & BENEFITS

- UV Resistant – Long Term Resistance
- Provides long-term air and water protection properties even when exposed to sunlight, rain, snow, or temperature extremes.
- Excellent weatherability – Temperature extremes of -15°F to 300°F
- Meets NFPA Class A Fire Rating
- NFPA 285 – Pass ¹
- Ease of Installation – One Coat Installation
- Air Tight – Exceeds industry requirements
- Primerless Adhesion on most substrates
- Solvent Free
- Elastomeric – Accommodates building movement
- Seamless – Cured membrane is continuous and does not form seams or laps
- Nail Sealability
- Low VOC
- Compatibility – Compatible with *Dow Corning*® Sealants, *Dow Corning*® 123 Silicone Seal, *Dow Corning*® Transition Strips, and *Dow Corning*® Molded Corners

¹ NFPA 285, Standard Test Method for Evaluation of Fire Propagation Characteristics of Exterior Non-Loading Bearing Wall Assemblies Containing Combustible Components, 2012 Edition – Passed in assembly tested. Please contact Dow Corning for more details.

Silicone Liquid Applied Air and Weather Barrier

APPLICATIONS

- Permeable air barrier used for new construction and renovation applications on many substrates including concrete, OSB, exterior sheathing, preformed panels, plywood, wood or steel stud walls.

DESCRIPTION

Dow Corning® DefendAir 200 is a 100% silicone liquid applied Air and Weather Barrier designed to protect against air infiltration and water penetration. The vapor permeable, one component, water-based coating 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.

The coating provides long-term protection from air and water infiltration; 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. There is not a limit on exposure time before being covered by the exterior cladding.

Dow Corning DefendAir 200 can be applied between 5°C (40°F) and 38°C (100°F) to a clean, dry surface. The average drying time is 4 to 12 hours, depending upon temperature, humidity, and wind conditions. *Dow Corning* DefendAir 200 will attain full adhesion and physical properties in 7 to 14 days.

HOW TO USE

When properly applied and cured, *Dow Corning* DefendAir 200 provides a fast, easy, and effective method of providing protection from air and water infiltration. This product may settle during prolonged storage, therefore, it is recommended to mix well before using. Do not dilute.

Surface Preparation

All surfaces to be coated with *Dow Corning* DefendAir 200 must be prepared as described in the most recent *Dow Corning Air and Weather Barrier Application Guide* (Form No 62-1723). 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* DefendAir 200 (see “Limitations”). Repair cracks larger than 1/16" (1.6 mm) with a material that is compatible with the substrate and *Dow Corning* DefendAir 200. *Dow Corning*® 790 Silicone Building Sealant, *Dow Corning*® 795 Silicone Building Sealant, *Dow Corning*® 791 Silicone Perimeter Sealant, *Dow Corning*® 756 SMS Building Sealant, and *Dow Corning*® 758 Silicone Weather Barrier Sealant can be used for crack repairs.

TYPICAL PROPERTIES

Values are based on 15 mil dry film thickness. Specification Writers: These values are not intended for use in preparing specifications. Please contact your local Dow Corning sales representative or your Global Dow Corning Connection before writing specifications on this product.

Test ¹	Property	Unit	Result
ASTM E2178	Air Permeance	cfm/ft ²	< 0.000985 at 1.57 psf
ULC-CAN-S741		L/(s-m ²)	< 0.005 at 75 Pa
ASTM E2357	Assembly Air Leakage	cfm/ft ²	< 0.000007 at 1.57 psf
CAN/ULC- S742	Class 1A	L/(s-m ²)	< 0.00003 at 75 Pa
ASTM E283	Assembly Air Infiltration	cfm/ft ²	< 0.01 at 1.57 psf (at 75 Pa)
ASTM E331	Assembly Water Infiltration	Tested to 15 PSF	Pass - No leakage
ASTM E330	Assembly Structural Loading	Tested to 30 PSF and 45 PSF	Pass - No damage to air barrier
ASTM E96	Water Vapor Permeance	US Perms	
	Water (Method B)	(ng/(m ² -Pa-s))	24.2
ASTM 1970, Section 8.9	Nail Sealability (Head of Water Test)		Pass
ASTM 1970, Section 8.6	Low Temperature Flexibility		Pass
ASTM E 84	Flame Spread		10
	Smoke Develop		85
	NFPA Class A, UBC Class 1		
ASTM C1305	Cracking Bridging		Pass
ASTM D 2369	Solids Content	% by volume	50.1
		% by weight	58.6
EPA Method 24	Volatile Organic Content (VOC)	(g/L)	< 2
ASTM D4541	Pull Adhesion	psi	
	Concrete Masonry Units		> 160
	Fiberglass mat gypsum sheathing		> 75
ASTM D 412	Tensile Strength	psi (MPa)	> 155 (1.07)
ASTM D 412	Elongation	%	650
	UV Exposure / Resistance		
	5000 hour exposure: 8 hour UV at 60°C		Complete – No change
	– 4 hour water at 50°C, UVA 340 bulbs		
	Color		White

¹ASTM: American Society of Testing and Materials.

²Brookfield HAV, spindle #3, 2 rpm.

All joints between exterior grade sheathing must be sealed using one of the above silicone sealants and struck flush prior to installing the coating. In addition, any unused nail holes or screws that missed the stud must be sealed.

Coating

Apply the coating in a 30-32 mils (0.76–0.81 mm) wet thickness (a job-specific mockup is recommended to determine actual usage). Due to *Dow Corning DefendAir 200* being 50% solids, one thick wet coat (30-32 mil [0.76 to 0.81 mm]) will result in the required 15-mil (0.38-mm) dry coating thickness. On occasion, a second 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. When applying the coating with a sprayer, a minimum 0.019" tip must be used. Sufficient pump pressure should be used to obtain an even spray pattern. Back rolling is not required.

Allow the coating to dry (typically 2 to 4 hours) before applying additional coats if needed. After the additional coat has been applied, the average drying time is 4 to 12 hours, depending upon temperature, humidity, and wind conditions. *Dow Corning DefendAir 200* will attain full adhesion and physical properties in 7 to 14 days.

Dow Corning DefendAir 200 was developed to obtain good adhesion to

the substrate without the need of a primer. Refer to the *Dow Corning Air and Weather Barrier Application Guide* to determine if adhesion testing or a primer is required for your specific substrate.

HANDLING

PRECAUTIONS

PRODUCT SAFETY

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

APPLICATION ENGINEER, OR DISTRIBUTOR, OR BY CALLING DOW CORNING CUSTOMER SERVICE.

USABLE LIFE AND STORAGE

Protect *Dow Corning* DefendAir 200 and *Dow Corning*® DefendAir 200 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* DefendAir 200 and *Dow Corning* DefendAir 200 Primer have shelf lives of 6 months and 18 months, respectively, from date of manufacture. Refer to product packaging for "Use By Date."

PACKAGING INFORMATION

Dow Corning DefendAir 200 and *Dow Corning* DefendAir 200 Primer are available in 5-gal (19-L) pails (44-42 lb [20 and 19.1 kg] per pail, respectively).

LIMITATIONS

Dow Corning DefendAir 200 should not be applied:

- When the ambient or surface temperature is expected to fall below 5°C (40°F) within 24 hours of application
- 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 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

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.

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.

Dow Corning offers a project-specific 10-Year Limited Air Barrier Warranty

when *Dow Corning* DefendAir 200 is applied in accordance with Dow Corning's published application guidelines. Contact your local Dow Corning 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 Corning will be responsible for the cost of replacement coating for any areas in which *Dow Corning* DefendAir 200 fails to perform to specifications.

Dow Corning's warranty is subject to certain restrictions and does not cover faults attributable to workmanship or the appearance of the coating.

NOTE: *Dow Corning* DefendAir 200 is used on a single-family residential dwelling.

We help you invent the future.™

dowcorning.com



CCW-705

Self-Adhering Air & Vapor Barrier

DESCRIPTION

The CCW-705 Air & Vapor Barrier is a 40-mil thick composite membrane consisting of a rubberized asphalt adhesive laminated to a tough, cross-laminated HDPE film. A siliconized release liner prevents the material from sticking together in the roll and is easily removed for installation. CCW-705 is available in convenient widths of 18, 24, and 36 inches. Factory-controlled quality assures uniform thickness on the job, providing an excellent air vapor and water barrier.

CCW-705 provides a complete barrier to moisture and air when adhered to an above-grade substrate. It is also useful for other above-grade wall flashing applications. CCW-705 Air & Vapor Barrier is cold applied and when pressed against the substrate will adhere firmly.

ADVANTAGES

- Resists mechanical damage
- Provides a seal around fasteners and other penetrations to prevent wall assembly leaks
- Self-adhering
- Part of a complete Air & Vapor Barrier system
- Easy to install, inspect and repair

APPLICABLE STANDARDS

The CCW-705 Air & Vapor Barrier conforms to the following specifications:

- GSA; PBS PCD 07121
- USN; NAVFAC TS-07111
- Federal Construction Guide Spec; FCGS-07111

INSTALLATION

Surface Preparation: Concrete shall be in place for 7 days minimum. Substrate must be completely dry. Fill cracks and gaps >1/4" across with approved sealant or fill material. Surface shall have a smooth finish free of voids, sharp protrusions, laitance and form release agents. Block or brick walls shall have mortar joints struck flush.

Adhesion Promotion: Surfaces to receive CCW-705 Vapor/Air Barrier System must be clean and dry. Prepare all surfaces with CCW-702, CCW-702 LV, CCW-702 WB or CAV-Grip contact adhesive. Apply CCW Contact Adhesive in a thin, even coat. Allow to dry until adhesive will not transfer when touched.

TECHNICAL DATA

PROPERTY	METHOD	RESULTS
Thickness	—	40 mils
Tensile Strength	ASTM D412	500 psi
Elongation*	ASTM D412	300%
Permeance	ASTM E96	0.05 perms
Pliability	ASTM D146	Passes @ -25°F 0.063" mandrel
Peel Strength	ASTM D903	7.5 lb/in width
Puncture Resistance	ASTM E154	50 lbs (min)
Lap Adhesion	ASTM D1876	7.0 lb/in width
H ₂ O Absorption	ASTM D570	0.12% by wt
Air Infiltration	ASTM E283	Pass
Water Penetration	ASTM E331	Pass
Wind Loading	ASTM E330	Pass
Air Permeance	ASTM E2178	0.000 L/s*m ² @ 75 Pa
Installation Temperature	—	Minimum 40°F, ambient and substrate
Maximum Exposure to UV	—	60 days
Service Temperature	—	-25°F to 149°F
*% of elongation to ultimate failure of rubberized asphalt membrane		

Adhesive on surface should still feel tacky at the time of membrane application. Re-apply adhesive to surfaces that lose tack or become dusty. Do not treat more surface area than can be covered with membrane the same day.

Application: Apply CCW-705 Air & Vapor Barrier in manageable lengths. Overlap adjoining pieces of membrane a minimum of 2". Begin installation at base of wall and work upwards, so that laps shed water. CCW-705 can be applied in long runs or in staggered horizontal rows. Use a suitable roller to press membrane firmly against the wall.

Seal T-joints, cut edges of membrane and non-shingled laps with a continuous bead of LM 800 XL Mastic. Seal the vertical termination of membrane at the end of the working day with a continuous bead of LM 800 XL Mastic.

LIMITATIONS

- Do not allow adhesive side or edge of membrane to contact visible sealant.
- Keep membrane back a minimum 1/2" from finished exterior.
- Do not apply CCW Contact Adhesive or CCW-705 to damp, frosty, or contaminated surfaces
- Do not apply over incompatible materials, including uncured sealants containing solvents, silicone sealants, coal tar, polysulfide and plasticized PVC membranes.

PACKAGING

CCW-705-36 - 36" wide x 75' roll: (225 ft²/rl)
1 roll per box, 35 boxes per pallet
Weight = 60 lb/box (approx); 2200 lb/pallet

CCW-705-24 - 24" wide x 100' roll
(200 ft²/rl) 1 roll per box, 32 boxes per pallet
Weight = 54 lb/box (approx); 1800 lb/pallet

CCW-705-18 - 18" wide x 100' roll
(150 ft²/rl) 1 roll per box, 48 boxes per pallet
Weight = 40 lb/box (approx); 2000 lb/pallet

CCW-702 LV VOC-Compliant, Solvent-Based Contact Adhesive: 5-gallon pails (45 pails per pallet)

CCW-702 Solvent-Based Contact Adhesive:
5 gallon pails (45 pails per pallet)

CCW-702 WB Water-Based Contact Adhesive:
5 gallon containers (60 containers per pallet)

CAV-GRIP Aerosol Spray Contact Adhesive
40 lb Cylinders

CAV-GRIP Accessories
Reusable hose of 6', 9', 12' or 18' and spray gun

LM 800 XL Mastic:
29 oz. qt Cartridge (12 ctg. per case),
5 gallon pails (45 pails per pallet)

WARNINGS AND HAZARDS

CCW-702, CCW-702 LV and LM 800 XL contain flammable and combustible solvents. Avoid exposure to open flame. Avoid breathing vapors. Use only in areas with adequate ventilation. Refer to MSDS for important warnings and product information.

STORAGE

CCW-705 rolls should be stored on end, under cover, and in areas where the temperature is between 40° and 100°F (4.4° and 38°C). Do not double stack pallets.

LIMITED WARRANTY

Carlisle Coatings & Waterproofing, Incorporated (Carlisle) warrants this product to be free of defects in workmanship and materials only at the time of shipment from our factory. If any Carlisle materials prove to contain manufacturing defects that substantially affect their performance, Carlisle will, at its option, replace the materials or refund its purchase price.

This limited warranty is the only warranty extended by Carlisle with respect to its materials. There are no other warranties, including the implied warranties of merchantability and fitness for a particular purpose. Carlisle specifically disclaims liability for any incidental, consequential, or other damages, including but not limited to, loss of profits or damages to a structure or its contents, arising under any theory of law whatsoever.

The dollar value of Carlisle's liability and buyer's remedy under this limited warranty shall not exceed the purchase price of the Carlisle material in question.



CCW-702LV

For Use With
Sheet Membranes

DESCRIPTION

CCW-702LV is a quick drying, solvent based, high-tack adhesive specifically designed to promote maximum adhesion of CCW self-adhering membranes.

Apply by medium nap roller (3/8" nap for best results) or brush in an even film at 300 to 350 square feet per gallon. Allow adhesive to dry for 20 minutes minimum at 75° F. Porous substrates will result in reduced coverage rates for proper adhesion. Adhesive has a satisfactory cure when surface is tacky, but will not transfer when touched. Apply only on areas to be waterproofed the same day. Reapply if area becomes dirty or wet. When used in adverse climactic conditions (i.e. humid, cool, etc.) or on a porous substrate, additional time will be required.

PACKAGING

5 Gallon pails, 45 pails per pallet, P/N 316148

Store at 35° to 110°F (2° to 43°C)

CAUTION: Flammable liquid and vapors. Use only with adequate ventilation and avoid breathing vapors. Refer to MSDS for other important warnings and product safety information.

TECHNICAL DATA

PROPERTY	RESULTS
Weight per Gallon	7.5 lbs
Solids Content	46% by wt
VOC Content	less than 250 g/l
Color	Plum Red
Flash Point	-4°F (-20°C)
Adhesion to Concrete	11.0 lb/in
Minimum Application Temp	25°F (3.9°C)
Viscosity	200 cps
Storage Temp	35°F to 110°F

LIMITED WARRANTY

Carlisle Coatings & Waterproofing, Incorporated (Carlisle) warrants this product to be free of defects in workmanship and materials only at the time of shipment from our factory. If any Carlisle materials prove to contain manufacturing defects that substantially effect their performance, Carlisle will, at its option, replace the materials or refund its purchase price.

This limited warranty is the only warranty extended by Carlisle with respect to its materials. There are no other warranties, including the implied warranties of merchantability and fitness for a particular purpose. Carlisle specifically disclaims liability for any incidental, consequential, or other damages, including but not limited to, loss of profits or damages to a structure or its contents, arising under any theory of law whatsoever.

The dollar value of Carlisle's liability and buyer's remedy under this limited warranty shall not exceed the purchase price of the Carlisle material in question.



CCW LM-800XL

LIQUID MASTIC

DESCRIPTION

CCW LM-800XL Liquid Mastic is a fast-drying elastomeric, single component, cold-applied liquid material.

TYPICAL USES

CCW LM-800XL is an accessory product used in conjunction with CCW MiraDRI 860/861 membranes. CCW LM-800XL is designed to be used as a fillet and reinforcement under CCW MiraDRI 860/861 membranes at footing foundation wall junctures or other inside corners; and between footing and foundations when tying in slab waterproofing with the foundation wall.

Other applications include terminations and flashing to protrusions from horizontal and vertical surfaces; terminations at drains; and detailing of the substrate prior to CCW MiraDRI 860/861 membrane application.

APPLICATION

CCW LM-800XL should be applied directly from the gallon with a putty knife at 40-50 mil thickness unless otherwise specified. When used as a fillet under CCW MiraDRI 860/861, use a 3/4" (1.9 cm) fillet and continue the CCW LM-800XL out 6" (15 cm) in each direction. At membrane terminations, use 60 mils of CCW LM-800XL as a flashing and apply at the minimum of 2" (5 cm) wide over the CCW membrane, and a minimum of 1" (2.5 cm) onto the surface being waterproofed. CCW MiraDRI 860/861 can be placed over CCW LM-800XL after it has cured. Allow CCW LM-800XL to cure 24 hours before flood testing. Do not use CCW LM-800XL in applications subject to more than 57.8 ft (17.6m) head of water. Coverage Rate at 3/4" fillet is 30' per 29 oz. tube, coverage rate at 40-50 mill is 20'-25' sq. ft. per gallon.

PACKAGING

5 gallon (19 liter) pails;
 1 gallon (4 liter) pails;
 29 oz. (822 kg) tubes, 12 per box;

CAUTIONS & LIMITATIONS

CCW LM-800XL Liquid Membrane should not be used near open flame and adequate ventilation should be provided for the protection of the applicators. Do not store CCW LM-800XL in direct sunlight or at temperatures exceeding 95°F. Improper storage could lead to product deterioration.

Tools and equipment may be thoroughly cleaned after use with mineral spirits, taking the necessary precaution when handling combustible materials. Refer to MSDS for other product safety information.

LIMITED WARRANTY

CARLISLE COATINGS & WATERPROOFING INCORPORATED (CARLISLE) warrants this product to be free of defects in workmanship and materials only at the time of shipment from our factory. If any CARLISLE materials prove to contain manufacturing defects that substantially effect their performance, CARLISLE will, at its option, replace the materials or refund its purchase price.

This limited warranty is the only warranty extended by CARLISLE with respect to its materials. There are no other warranties, including the implied warranties of merchantability and fitness for a particular purpose. CARLISLE specifically disclaims liability for any incidental, consequential, or other damages, including but not limited to, loss of profits or damages to a structure or its contents, arising under any theory of law whatsoever.

The dollar value of CARLISLE's liability and buyer's remedy under this limited warranty shall not exceed the purchase price of the CARLISLE material in question.

TECHNICAL DATA

Property	Test Method	Unit	Typical Value
Color	—	—	Green
Solids	—	%	58
Pliability @25°F (-32°C)	ASTM E 1970	lbs (kg)	Pass
Hydrostatic Head Resistance	ASTM D 751	—	57.8 ft (17.6 m), max
Elongation	ASTM D 412	%	1396
Peel Adhesion	ASTM D 903	lbs/in (kN/m)	28 (4.9)
VOC Content	—	g/L	377.5



Product Information Silicone Sealants

Dow Corning[®] 791 Silicone Weatherproofing Sealant

FEATURES

- Ideal for expansion, connection, perimeter and other movement joints
- Neutral cure – suitable for use on coated glass, galvanized steel, masonry and other porous and non-porous substrates
- Extension/compression movement capability of up to ±50 percent of the original joint width

BENEFITS

- Excellent weatherability, virtually unaffected by sunlight, rain, snow, ozone.
- Excellent unprimed adhesion to a wide variety of construction materials and building components.
- Ease of application – ready to use as supplied
- Excellent rheology, low string upon gunning

COMPOSITION

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

Neutral, one-part silicone sealant

APPLICATIONS

Dow Corning[®] 791 Silicone Weatherproofing Sealant is a specified, premium performance weathersealing product specifically designed for general glazing and weathersealing in curtainwall and building facades.

TYPICAL PROPERTIES

Specification Writers: Please contact your local Dow Corning Sales Application Engineer or Dow Corning Customer Service before writing specifications on this product.

Method	Test	Unit	Result
Uncured – As Tested at 50% RH and 23°C (73°F)			
ASTM C 639	Flow (sag or slump)	inches (mm)	0
ASTM C 603	Extrusion Rate	g/minute	140
	Working Time	minutes	20
ASTM C 679	Tack-free Time, 77°F, 50% RH	minutes	40
	Curing Time at 77° (25°C) and 50% RH	days	7-14
	VOC Content ³	g/L	31
As Cured – After 21 days at 50% RH and 77°F (25°C)			
ASTM D 2240	Durometer Hardness, Shore A	points	34
ASTM C 794	Peel Strength	lb/in (kg/cm)	30 (5.4)
ASTM C 719	Joint Movement Capability	percent	±50
ASTM C 1135	Tensile Adhesion Strength		
	At 25% extension	Psi (MPa)	40 (0.276)
	At 50% extension	Psi (MPa)	60 (0.414)

¹ ASTM – American Society for Testing and Materials.

² CTM – Corporate Test Method; copies of CTMs are available on request.

³ 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.

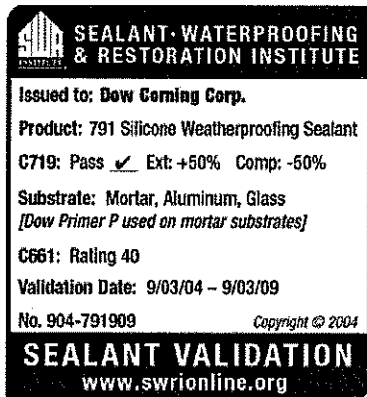
DESCRIPTION

Dow Corning 791 Silicone Weatherproofing Sealant is a one-part, neutral-cure, architectural grade sealant. It easily extrudes in any weather and cures at ambient temperature by reaction with moisture in the air to form a durable, flexible silicone rubber seal.

APPROVALS/ SPECIFICATIONS

Meets the requirements of:

- ASTM C920 Type S, Grade NS, Class 50, Use NT, M, G, A



Colors

This product is available in 6 colors: black, gray, bronze, limestone, precast white and white. 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 maybe necessary for optimal sealant of certain porous surfaces. A test placement is always recommended. Apply *Dow Corning 791 Silicone Weatherproofing Sealant* in a

continuous operation using a 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 backing material and the 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 MATERIAL SAFETY DATA SHEETS AND CONTAINER LABELS FOR SAFE USE, PHYSICAL AND HEALTH HAZARD INFORMATION. THE MATERIAL SAFETY DATA SHEET IS AVAILABLE ON THE DOW CORNING WEBSITE AT WWW.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 30°C (86°F) in the original unopened containers, Dow Corning 791 Silicone Weatherproofing Sealant has a usable life of 12 months from the date of manufacture. Refer to product packaging for "Use By" date.

PACKAGING

Dow Corning 791 Silicone Weatherproofing Sealant is available in 10.3 fl oz (305-mL) disposable plastic cartridges that fit ordinary caulking guns, 20-fl oz (590-mL) sausages.

LIMITATIONS

Dow Corning 791 Silicone Weatherproofing Sealant is not approved for use as a structural sealant.

Dow Corning 791 Silicone Weatherproofing Sealant should not be used:

- In below-grade applications
- When surface temperatures exceed 50°C (122°F)
- On surfaces that are continuously immersed in water.
- On building materials that bleed oils, plasticizers or solvents, green or partially vulcanized rubber gaskets or tapes
- 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 web site, www.dowcorning.com, or consult your local Dow Corning Sales Application Engineer.

**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 Dow Corning's 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 the product will meet the Dow Corning 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.

**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.**

A 20-year Weatherseal Limited Warranty is available. Some testing may be required. Consult your Dow Corning Sales Application Engineer for details.

Product Information

High Performance Building

DOW CORNING

Dow Corning® DefendAir 200 Primer

FEATURES

- Water-based
- Improves adhesion of Dow Corning® DefendAir 200 Silicone Liquid Applied Air & Weather Barrier to properly prepared substrates

COMPOSITION

- Water-based silicone emulsion

Silicone adhesion promoter for use with *Dow Corning* DefendAir 200 Liquid Applied Air & Weather Barrier

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.

Property	Unit	Result
Solids by Weight	%	20
Specific Gravity		1.0
Volatile Organic Compound Content (VOC) ¹	g/L	30
Liquid Appearance		Milky white
Cured Appearance		Transparent; darkens substrate

¹Including H₂O and exempt compounds.

DESCRIPTION

Dow Corning® DefendAir 200 Primer is a water-based silicone adhesion promoter developed to improve the adhesion of *Dow Corning* DefendAir 200 Air & Weather Barrier to properly prepared substrates.

HOW TO USE

To develop the best adhesion of this primer to the substrate, follow these guidelines:

Application

1. This product is a one-coat method and can be applied with a 13 to 19-mm (½ to ¾-inch) nap roller, nylon bristle brush or airless sprayer such as a garden sprayer.
2. Apply to the prepared wall surface at a rate of approximately 7.4 square meters per liter (300 square feet per gallon).
3. Allow the primer to dry to the touch (30 minutes to 2 hours) before applying *Dow Corning* DefendAir 200.
4. Apply only when temperatures are above 4°C (40°F) and there is no chance of rain within 12 hours.

Spills and Cleanup

Spills or overspray can leave a slick film on floors and other surfaces, creating a potentially dangerous situation for applicators and tenants. Clean slippery areas immediately. Before the primer dries, spills can be cleaned with soap and water.

HANDLING PRECAUTIONS

PRODUCT SAFETY INFORMATION REQUIRED FOR SAFE USE IS NOT INCLUDED IN THIS DOCUMENT. BEFORE HANDLING, READ PRODUCT AND MATERIAL SAFETY DATA SHEETS AND CONTAINER LABELS FOR SAFE USE, PHYSICAL AND HEALTH HAZARD INFORMATION. THE MATERIAL SAFETY DATA SHEET IS AVAILABLE ON THE DOW CORNING WEB SITE AT DOW CORNING.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 32°C (90°F), *Dow Corning Dow Corning DefendAir 200 Primer* has a shelf life of 18 months from date of manufacture. Refer to product packaging for "Use By" date.

Avoid freezing.

PACKAGING INFORMATION

Dow Corning DefendAir 200 Primer is supplied in 19.1-kg (42-lb) pails.

LIMITATIONS

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 Web site, 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.

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

Step 2. Sealing Joints and Penetrations

Substrate joints, defects and holes

All joints between substrates (such as those found in exterior grade gypsum or plywood sheets) should be sealed using a *Dow Corning* sealant such as *Dow Corning* 791 Silicone Weatherproofing Sealant. The sealant should be tooled flush to the surface. No bond breaker is required for these joints provided they are static joints (Figure 1). Any unused nail holes must be sealed using a sealant such as *Dow Corning* 791 Silicone Weatherproofing Sealant and struck flush to the surface of the substrate prior to the installation of *Dow Corning* DefendAir 200. Screw and nail heads that remain in the substrate do not need to be sealed separately prior to the installation of the air and weather barrier. As a general rule, cracks less than 1/8 inch (1.6 mm) can be bridged with *Dow Corning* DefendAir 200 and do not need to be sealed separately.

Defects in the substrate can be repaired flush to the surface using the same sealant (Figure 2) or a patching material recommended by the substrate manufacturer. Cementitious patches should be allowed to cure for a minimum of 10 days prior to installing the coating.

Changes in the substrate (Figure 3) and control joints (Figure 4) should be sealed as a traditional weatherseal joint. There are five basic steps for proper joint preparation and sealant application:

1. **Clean** – Joint surfaces must be clean, dry, dust-free and frost-free.
2. **Prime** – If required, primer is applied to the clean surface(s).
3. **Pack** – Backer rod or bond breaker is applied.
4. **Seal** – Sealant such as *Dow Corning* 791 Silicone Weatherproofing Sealant is applied into the joint cavity.
5. **Tool** – Dry-tooling techniques are used to create a flush joint and to make certain the sealant has the proper configuration and fully contacts the joint walls.

Wall offsets or changes in plane can be sealed using a fillet bead of sealant (Figure 5). Bond breaker material does not need to be used unless greater than 15 percent movement is expected in the joint.

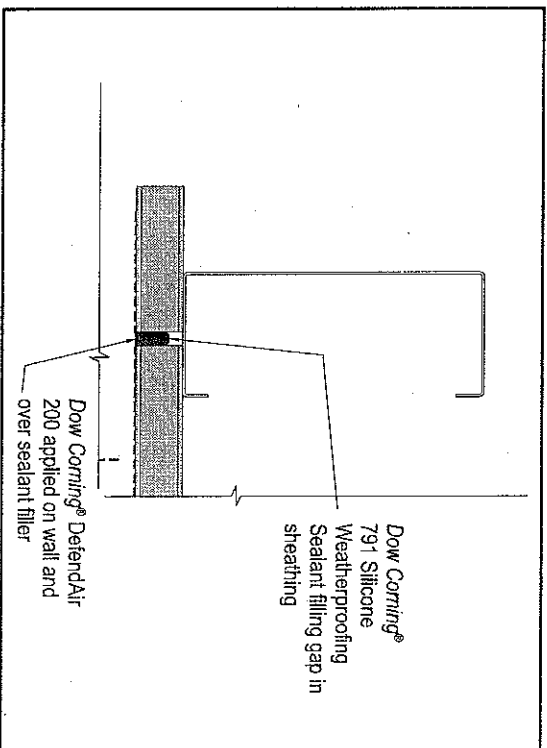


Figure 1. Gap in sheathing.

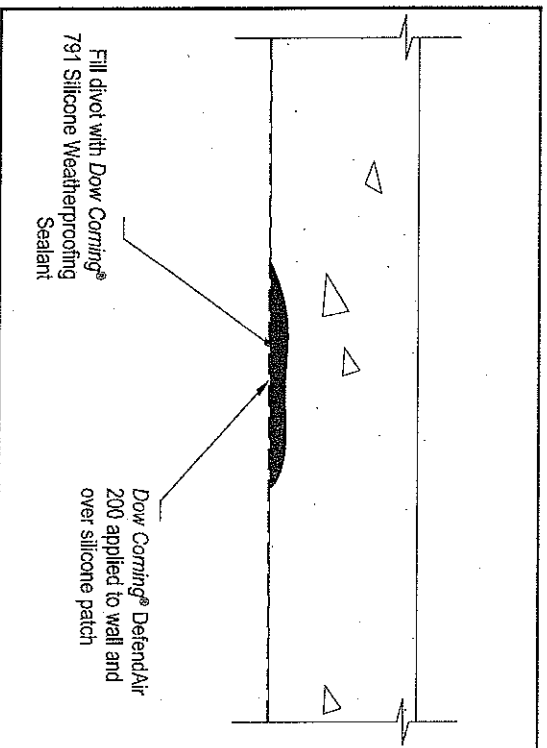


Figure 2. Divot in concrete wall detail.

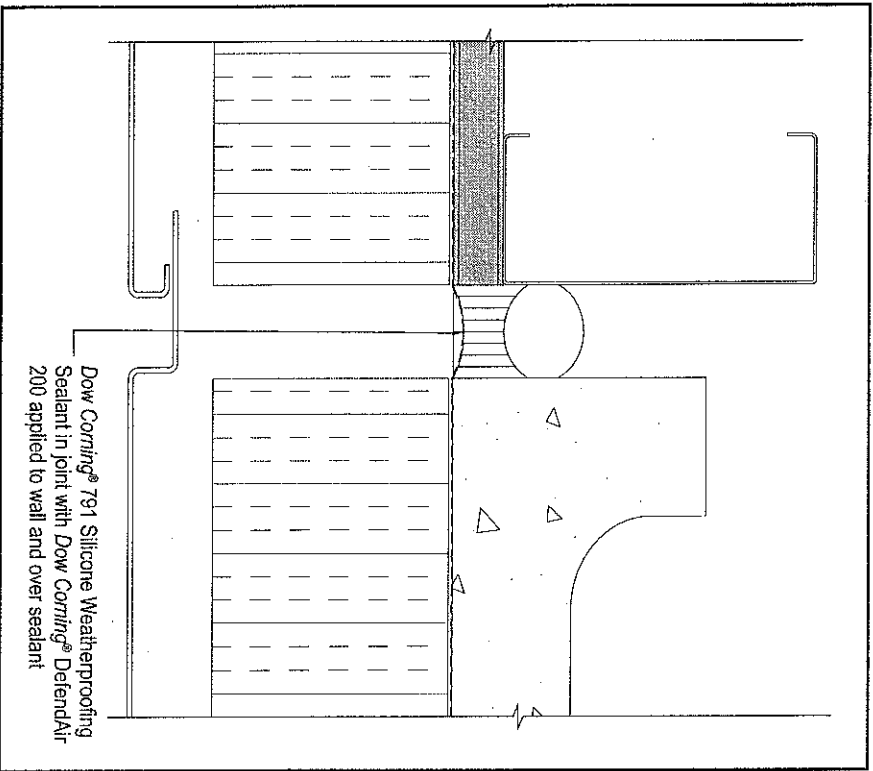


Figure 3. Change in substrate detail.

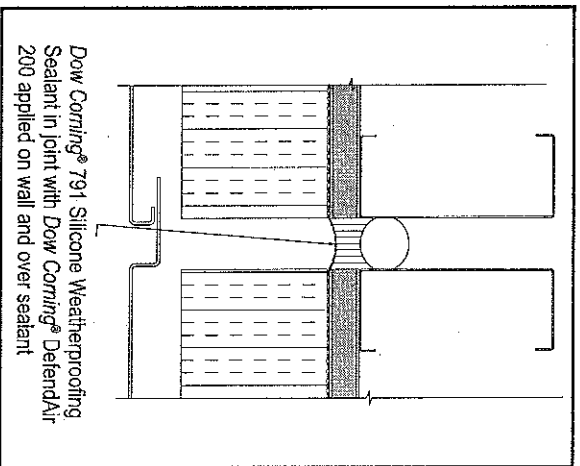


Figure 4. Control joint detail.

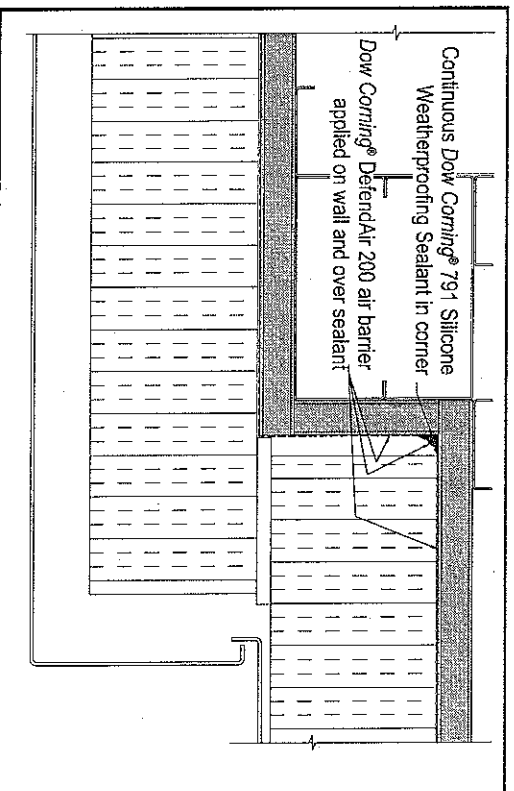


Figure 5. Wall offset detail.

Penetrations

Gaps around penetrations should be sealed in a similar manner using a sealant such as *Dow Corning 791 Silicone Weatherproofing Sealant*. To reduce the amount of sealant used, a backer rod can be inserted into gaps greater than 1/4 inch (6.3 mm) and sealed as if it were a traditional sealant joint (Figure 6).

When penetrations are made through *Dow Corning DefendAir 200* after installation, best practice is to seal around all penetrations and the tops of all screw heads with cap beads. If fasteners miss the stud during installation, it is better to leave those fasteners in place and seal with a cap bead than to remove them.

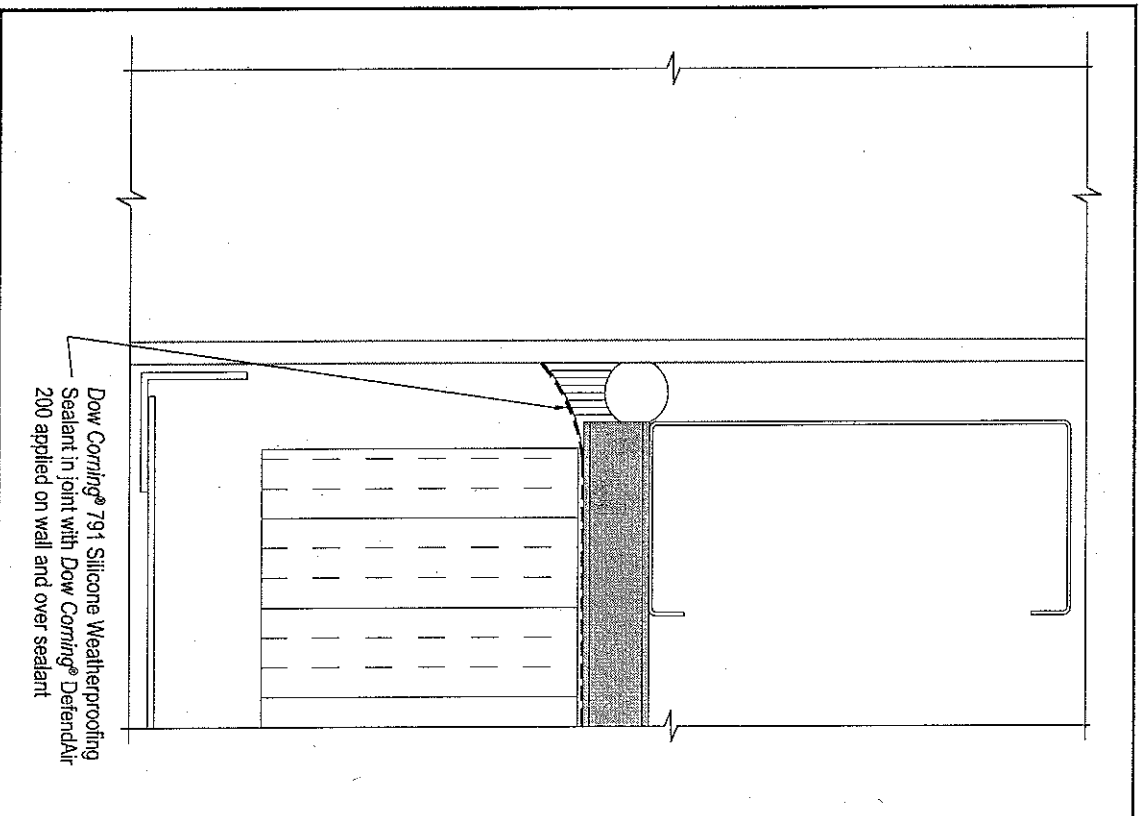


Figure 6. Wall penetration detail.

Window openings

Window sills must be flashed with an approved through-wall flashing material. *Dow Corning 791 Silicone Weatherproofing Sealant* can be trowel-applied in a 25-mil (0.63 mm) wet-film thickness for this application. The sealant should be applied on the entire sill and 8 to 12 inches (203.2 to 304.8 mm) up both vertical jambs. The sealant should be applied around the front corner of the sill and jambs, covering a 3- to 4-inch (76.2 to 101.6 mm) perimeter on the face of the sheathing. *Dow Corning DefendAir 200* should overlap all the *Dow Corning 791 Silicone Weatherproofing Sealant* by at least 1 inch (25.4 mm).

Dow Corning DefendAir 200 should be used to flash the remainder of the jambs and the head of all openings. An extra 15-mil (0.38 mm) wet film coat of *Dow Corning DefendAir 200* is recommended to accommodate the extra absorption of the coating in these areas. When the distance between materials in the window opening (i.e., the distance between the sheathing and the window framing) is greater than 1/8 inch (3.175 mm), a bead of sealant can be used to bridge the gap.

The sealing of window openings can be completed with a liquid-applied sealant (Figure 7) or *Dow Corning STS* (Figure 8). This step can be completed before or after *Dow Corning DefendAir 200* is installed. When *Dow Corning STS* is installed after the air and weather barrier, *Dow Corning DefendAir 200* should be allowed to dry for a minimum of 24 hours before the *Dow Corning STS* is installed. A primer is not required when one of the recommended sealants is used to adhere *Dow Corning STS* to *Dow Corning DefendAir 200*.

When installing *Dow Corning STS* before *Dow Corning DefendAir 200*, it is important to seal the absolute edge of the *Dow Corning STS* as shown in these details. A second line of sealant, a lap seal, may be required at the immediate edge of the *Dow Corning STS* after it has been installed. This additional step will ensure that no area of the substrate is left exposed once the air and weather barrier is installed.

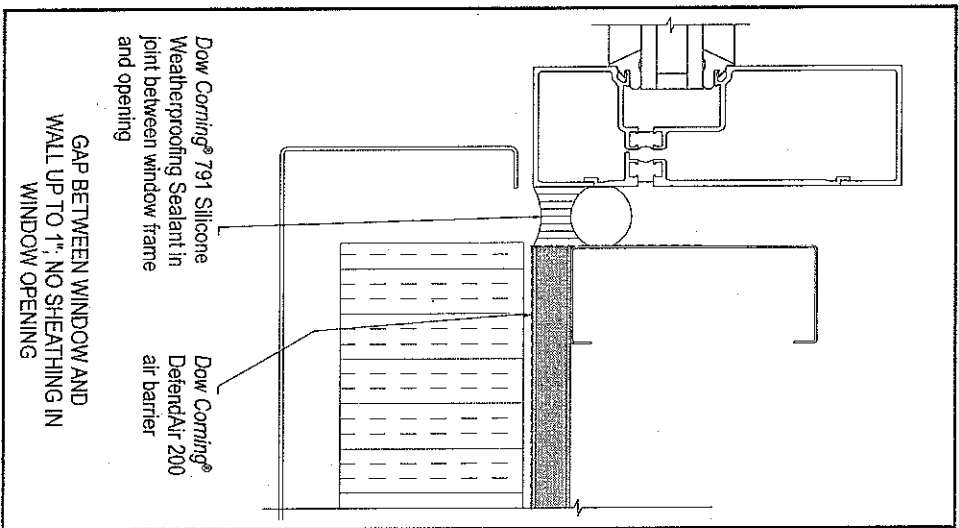


Figure 7. Window jamb with sealant detail.

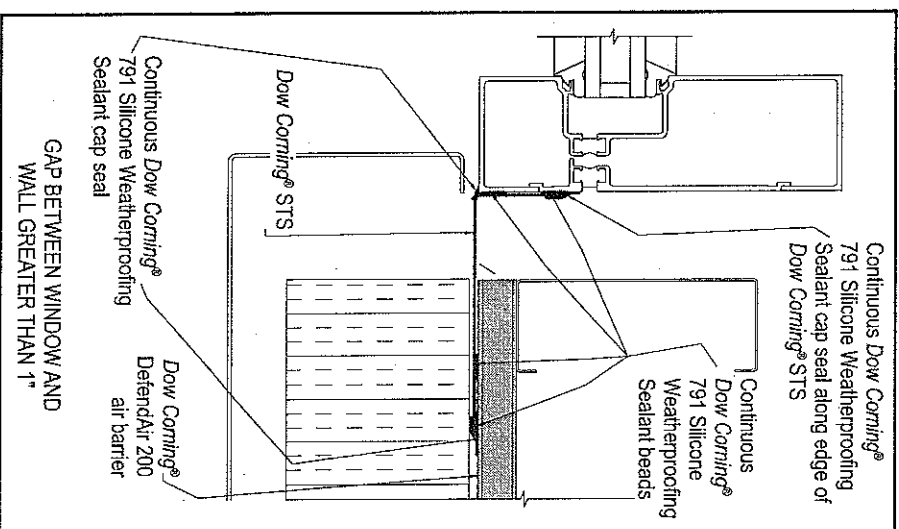


Figure 8. Window jamb with *Dow Corning*® Silicone Transition System detail.

Foundation and roof transitions

Foundation and roof transitions are best sealed using Dow Corning STS. When installing Dow Corning STS, it is important to choose a sealant that adheres well to the substrate(s). In the case of most roofing and foundation membranes, the recommended sealant is Dow Corning 758 Silicone Weather Barrier Sealant. See Figures 9 and 10.

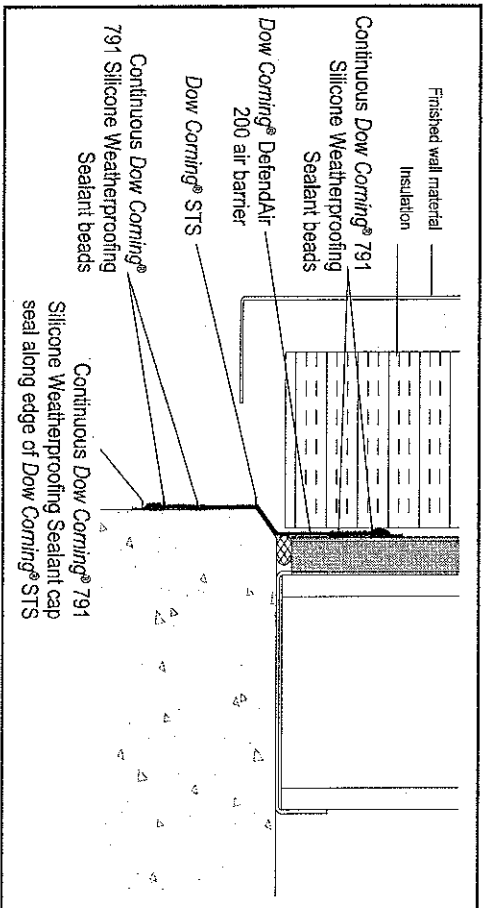


Figure 9. Stud wall to foundation wall detail.

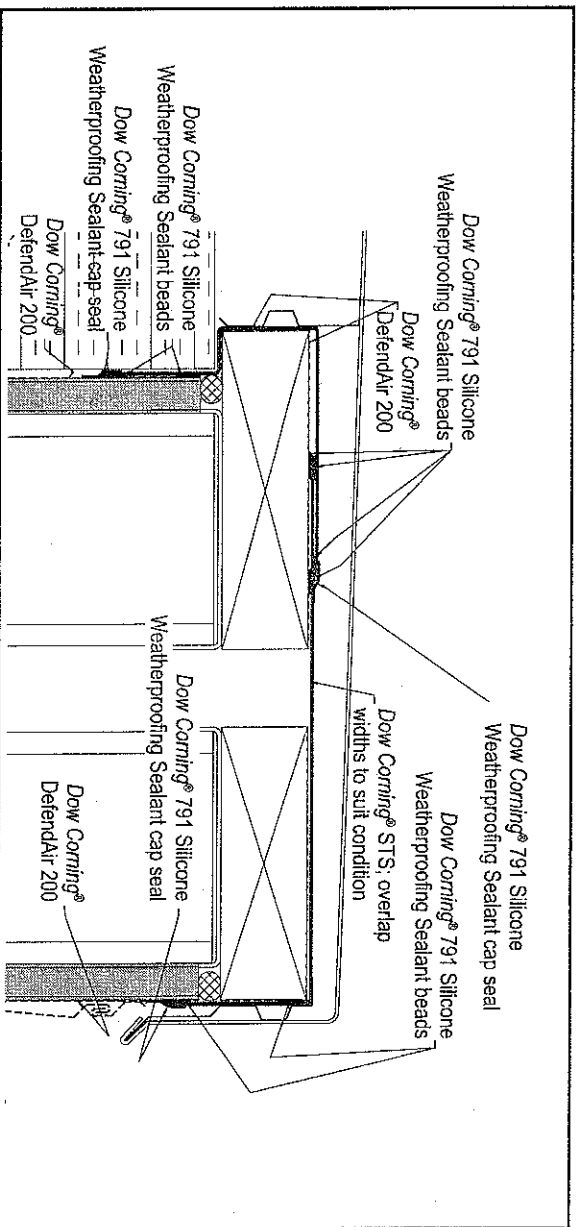


Figure 10. Dow Corning Silicone Transition System under cap.