

# Building Sealant Recommendations and Surface Preparation Guide for Non-Structural Applications

**DOW CORNING**

(ALL STRUCTURAL APPLICATIONS MUST BE TESTED BY DOW CORNING TEST LAB.)

	<b>Dow Corning® 756 SMS Building Sealant</b>	<b>Dow Corning® 790 Silicone Building Sealant<sup>1</sup></b>	<b>Dow Corning® 791 Silicone Weatherproofing Sealant</b>	<b>Dow Corning® 795 Silicone Building Sealant</b>	<b>Dow Corning® 983 Silicone Glazing and Curtainwall Adhesive/Sealant</b>	<b>Dow Corning® 995 Silicone Structural Sealant</b>
Substrate	Surface Prep					
<b>Concrete &amp; Masonry</b>						
Brick	Abrade/Dust	Abrade/Dust	Abrade/Dust/P	Abrade/Dust/P	NA	NA
Concrete Block	Abrade/Dust/P	Abrade/Dust	Abrade/Dust/P	Abrade/Dust/P	NA	NA
Poured Concrete	Abrade/Dust/P	Abrade/Dust	Abrade/Dust/P	Abrade/Dust/P	NA	NA
Precast Concrete	Abrade/Dust/P	Abrade/Dust	Abrade/Dust/P	Abrade/Dust/P	NA	NA
Tilt-Up Concrete	Abrade/Dust/P	Abrade/Dust	Abrade/Dust/P	Abrade/Dust/P	NA	NA
Mortar	No Data/Field Test	Abrade/Dust	Abrade/Dust/P	Abrade/Dust/P	NA	NA
Grout	No Data/Field Test	Abrade/Dust	Abrade/Dust/P	Abrade/Dust/P	NA	NA
Plaster	No Data/Field Test	Abrade/Dust	Abrade/Dust/P	Abrade/Dust/P	NA	NA
Ceramic Tile	No Data/Field Test	Solvent Wipe	Solvent Wipe	Solvent Wipe	Solvent Wipe	Solvent Wipe
<b>EIFS<sup>2</sup></b>						
Dryvit	No Data/Field Test	1200 OS <sup>3</sup>	1200 OS <sup>3</sup>	1200 OS <sup>3,4</sup>	NA	NA
Parex	No Data/Field Test	1200 OS <sup>3,4</sup>	1200 OS <sup>3</sup>	No Primer <sup>3</sup>	NA	NA
Pleko	No Data/Field Test	1200 OS <sup>3</sup>	1200 OS <sup>3</sup>	No Primer <sup>3</sup>	NA	NA
Senergy	No Data/Field Test	1200 OS <sup>3</sup>	1200 OS <sup>3</sup>	No Primer <sup>3</sup>	NA	NA
Simplex, Finestone	No Data/Field Test	1200 OS <sup>3</sup>	1200 OS <sup>3</sup>	No Primer <sup>3</sup>	NA	NA
STO	No Data/Field Test	1200 OS <sup>3</sup>	No Primer <sup>2,5</sup>	No Primer <sup>3,5</sup>	NA	NA
Tec	No Data/Field Test	1200 OS <sup>3</sup>	1200 OS <sup>3</sup>	No Primer <sup>3</sup>	NA	NA
Thoro	No Data/Field Test	1200 OS <sup>3</sup>	1200 OS <sup>3</sup>	No Primer <sup>3</sup>	NA	NA
USG	No Data/Field Test	1200 OS <sup>3</sup>	1200 OS <sup>3</sup>	No Primer <sup>3</sup>	NA	NA
<b>Stone</b>						
Granite	Solvent Wipe	Solvent Wipe	Solvent Wipe	Solvent Wipe	NA	Solvent Wipe
Travertine	No Data/Field Test	Solvent Wipe/1200 OS	Solvent Wipe/1200 OS/P	Solvent Wipe/1200 OS/P	NA	NA
Marble <sup>6</sup>	Solvent Wipe/1200 OS/P	Solvent Wipe/1200 OS	Solvent Wipe/1200 OS/P	Solvent Wipe/1200 OS/P	NA	NA
Limestone	Solvent Wipe/1200 OS/P	Abrade/Solvent Wipe/1200 OS	Solvent Wipe/1200 OS/P	Solvent Wipe/1200 OS/P	NA	NA
Sandstone	No Data/Field Test	Solvent Wipe/1200 OS	Solvent Wipe/1200 OS/P	Solvent Wipe/1200 OS/P	NA	NA
<b>Glass</b>						
Insulating	Solvent Wipe	Solvent Wipe	Solvent Wipe	Solvent Wipe	Solvent Wipe	Solvent Wipe
Float	Solvent Wipe	Solvent Wipe	Solvent Wipe	Solvent Wipe	Solvent Wipe	Solvent Wipe
Laminated <sup>7</sup>	Solvent Wipe	Solvent Wipe	Solvent Wipe	Solvent Wipe	Solvent Wipe	Solvent Wipe
Plate	Solvent Wipe	Solvent Wipe	Solvent Wipe	Solvent Wipe	Solvent Wipe	Solvent Wipe
Tinted	Solvent Wipe	Solvent Wipe	Solvent Wipe	Solvent Wipe	Solvent Wipe	Solvent Wipe
Porcelain-Coated	No Data/Field Test	Solvent Wipe	Solvent Wipe	Solvent Wipe	Solvent Wipe	Solvent Wipe
Ceramic Frit Coating	Solvent Wipe	Solvent Wipe	Solvent Wipe	Solvent Wipe	Solvent Wipe	Solvent Wipe
Reflective Glass <sup>8</sup>	No Data/Field Test	Solvent Wipe/1200 OS	Solvent Wipe	Solvent Wipe	Solvent Wipe	Solvent Wipe
Low E High (T) Glass <sup>8</sup>	No Data/Field Test	Solvent Wipe/1200 OS	Solvent Wipe	Solvent Wipe	Solvent Wipe	Solvent Wipe
<b>Paints</b>						
Acrylic Latex	No Data/Field Test	Solvent Wipe/1200 OS	Solvent Wipe	Solvent Wipe	Solvent Wipe	Solvent Wipe
Acrylic Thermoset	Solvent Wipe	Solvent Wipe/1200 OS	Solvent Wipe	Solvent Wipe	Solvent Wipe/1200 OS/C	Solvent Wipe
Duracron	Solvent Wipe	Solvent Wipe/1200 OS	Solvent Wipe	Solvent Wipe	Solvent Wipe/1200 OS/C	Solvent Wipe
Alkyd	No Data/Field Test	Solvent Wipe/1200 OS	Solvent Wipe	Solvent Wipe	Solvent Wipe	Solvent Wipe
Silicone Polyester	No Data/Field Test	Solvent Wipe/1200 OS	Solvent Wipe	Solvent Wipe	Solvent Wipe	Solvent Wipe
Polyester Powder Coating <sup>9</sup>	No Data/Field Test	Solvent Wipe/1200 OS	Solvent Wipe	Solvent Wipe	Solvent Wipe/1200 OS/C	Solvent Wipe
Polyurethane	No Data/Field Test	Solvent Wipe/1200 OS	Solvent Wipe	Solvent Wipe	Solvent Wipe	Solvent Wipe
Polyvinyl Chloride (PVC)	No Data/Field Test	Solvent Wipe/1200 OS	Solvent Wipe	Solvent Wipe	No Data/Field Test	No Data/Field Test

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Substrate	Surface Prep					
Fluoropolymer						
Kynar	Solvent Wipe	Solvent Wipe/1200 OS	Solvent Wipe	Solvent Wipe/1200 OS/C	Solvent Wipe/1200 OS/C	Solvent Wipe
Duranar	Solvent Wipe	Solvent Wipe/1200 OS	Solvent Wipe	Solvent Wipe/1200 OS/C	Solvent Wipe/1200 OS/C	Solvent Wipe
Fluoropon	Solvent Wipe	Solvent Wipe/1200 OS	Solvent Wipe	Solvent Wipe/1200 OS/C	Solvent Wipe/1200 OS/C	Solvent Wipe
Duranar XL	Solvent Wipe	Solvent Wipe/1200 OS	Solvent Wipe	Solvent Wipe/1200 OS/C	Solvent Wipe/1200 OS/C	Solvent Wipe
Acroflur	Solvent Wipe	Solvent Wipe/1200 OS	Solvent Wipe	Solvent Wipe/1200 OS/C	Solvent Wipe/1200 OS/C	Solvent Wipe
Metals						
Aluminum – Alodine	Solvent Wipe	Solvent Wipe/1200 OS	Solvent Wipe	Solvent Wipe	Solvent Wipe	Solvent Wipe
Aluminum – Mill Finish	No Data/Field Test	Solvent Wipe/1200 OS or Scotch-Brite Abrade	Solvent Wipe/1200 OS or Scotch Brite Abrade	Solvent Wipe/1200 OS or Scotch Brite Abrade	1200 OS/C	1200 OS
Aluminum – Anodized	No Data/Field Test	Test/1200 OS	Solvent Wipe	Solvent Wipe	Solvent Wipe	Solvent Wipe
Copper	No Data/Field Test	Do Not Use	Solvent Wipe	Solvent Wipe	Solvent Wipe	Solvent Wipe
Lead	No Data/Field Test	Solvent Wipe	Solvent Wipe/1200 OS	Solvent Wipe/1200 OS	Solvent Wipe	Solvent Wipe
Steel						
Red Lead Primer	No Data/Field Test	Solvent Wipe/1200 OS	Solvent Wipe	Solvent Wipe	NA	No Data/Field Test
Weathered	No Data/Field Test	Solvent Wipe/1200 OS	Abrade/Solvent Wipe	Abrade/Solvent Wipe	NA	No Data/Field Test
Stainless	Solvent Wipe	Solvent Wipe/1200 OS	Solvent Wipe/1200 OS	Solvent Wipe/1200 OS	1200 OS/C	Solvent Wipe
Galvanized	No Data/Field Test	Solvent Wipe/1200 OS	Solvent Wipe	Solvent Wipe/1200 OS	1200 OS/C	Solvent Wipe
Cold Rolled	No Data/Field Test	Solvent Wipe/1200 OS	Solvent Wipe	Solvent Wipe	NA	No Data/Field Test
Plastics						
PVC	No Data/Field Test	Solvent Wipe/1200 OS	Solvent Wipe	Solvent Wipe	1200 OS	Solvent Wipe
Acrylic	No Data/Field Test	Do Not Use	Solvent Wipe	Solvent Wipe	1200 OS	Solvent Wipe
Polycarbonate	No Data/Field Test	Do Not Use	Solvent Wipe	Solvent Wipe	Do Not Use	Solvent Wipe

**Dow Corning must test all materials for adhesion in structural applications. Field adhesion tests must be performed at the jobsite to verify sealant adhesion.**

<sup>1</sup>When using a primer with 790 Silicone Building Sealant, apply the primer before installing backer rod and allow the primer to dry. Cold weather and porous surfaces require additional drying time.

<sup>2</sup>Do not apply sealant to EIFS finish coat unless approved by EIFS manufacturer.

<sup>3</sup>Cleaning procedures for EIFS systems should be followed per the *Dow Corning Americas Technical Manual* (Form No. 62-1111).

<sup>4</sup>Rigid vinyl edge component requires 1200 OS Primer.

<sup>5</sup>1200 Primer is required on STO System II (BTS-B, no finish).

<sup>6</sup>The extremely porous nature of some marble, particularly white marble, can contribute to the potential for fluid migration into this substrate. Contact a Dow Corning Specialist when working with marble.

<sup>7</sup>Laminated Glass with polyvinyl butyrol (PVB) interlayer may delaminate up to 1/4" at the edges when in contact with a sealant.

<sup>8</sup>Do not use 790 Silicone Building Sealant on copper sputter coated glass.

<sup>9</sup>See Organic Solvent Usage in *Dow Corning Americas Technical Manual* for comment.

Key: 1200 OS: *Dow Corning®* 1200 OS Primer; C: *Dow Corning®* Primer C; P: *Dow Corning®* Primer P; NA: Not applicable.

This surface preparation guide is intended to aid in proper selection of surface preparation techniques and primers, if necessary, to gain adhesion that meets Dow Corning's requirements. The suggestions in this guide are not blanket approval recommendations; Dow Corning requires all surface prep recommendations in this guide be verified by field or shop adhesion testing and documented prior to starting the project for each substrate/sealant combination. Failure to verify and document adhesion results may result in adhesion loss that is not covered by the Dow Corning Warranty. Recommendations in this guide have been shown to be the best overall recommendations but do not cover every substrate for each material type or finish listed in this guide. Additionally, substrate manufacturers should be contacted to obtain recommendations for proper cleaning solvents for use with their materials. The entire "Weatherproofing" section of the *Dow Corning Americas Technical Manual* (Form No. 62-1111) should be read and understood before proceeding with the evaluations. The following sections must be followed to verify and document adhesion:

Substrate Cleaning Procedure (p 63)  
 "Two Cloth" Cleaning Method (p 64)  
 Primer Application Procedure (p 65)

Field Adhesion Testing Procedure (p 73)  
 Field Adhesion Hand Pull Test Criteria (p 74)  
 Field/Shop Adhesion Log and Sealant Quality Control Logs (p 77-79)

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