



DOWSIL™ Silicone Joint Sealants

Guide Specification - Short Form Residential Version

To support the growing demand for innovative, high-performance and sustainable structures, Dow is continuously strengthening its suite of construction solutions and services for building professionals. Silicon-based sealants, coatings, water repellents and concrete admixtures by Dow are designed to protect, strengthen, and preserve building materials in new construction and renovation projects. For example, silicone construction sealants have a life expectancy that is typically several times longer than organic sealants used in the same applications. They waterproof, remain flexible, and resist the effects of ultraviolet (UV) light and common temperature extremes.

Dow provides industry professionals with product information, technical expertise, design tools and other resources to create total building system solutions, based on decades of construction industry expertise, technical service, support resources, and customized construction services.

Dow provides performance-enhancing solutions to serve the diverse needs of more than 25,000 customers worldwide. A global leader in silicones, silicon-based technology and innovation, Dow offers more than 7,000 products and services via the company's DOWSIL™ and XIAMETER™ (xiameter.com) brands. More than half Dow Consumer Solutions' annual sales are outside the United States.

A full-length version of this section is available for larger scale commercial and institutional projects.

We recommend you consult with your Dow construction technical representative, who can be contacted through:
The Dow Chemical Company, Midland MI; (877) SEALANT ((877) 732-5268); email: construction@dow.com;
dow.com/content/construction.

Products from Dow appear in the following CSI Master Format specifications sections:

- Section 07 01 91 Joint Sealant Rehabilitation and Replacement
- Section 07 92 00 Joint Sealants
- Section 08 85 00 Glazing Sealants
- Section 09 96 53 Silicone Elastomeric Coatings
- Section 32 13 73 Concrete Paving Joint Sealants

PART 1 – GENERAL**1.1 SUMMARY**

- A. Section includes exterior elastomeric weatherproofing sealants and interior joint sealants.
- B. Single Source Responsibility: Provide exterior joint sealants by a single manufacturer.

1.2 WARRANTY

- A. Special Manufacturer's Warranty: Manufacturer's standard form in which joint sealant manufacturer agrees to furnish joint sealants to repair or replace those that demonstrate deterioration or failure under normal use within warranty period specified.
 - 1. Warranty Period for Silicone Sealants: [5] years following date of Substantial Completion.
- B. Warranty Conditions: Special warranties exclude deterioration or failure of joint sealants in normal use due to structural movement resulting in stresses on joint sealants exceeding sealant manufacturer's written specifications, joint substrate deterioration, mechanical damage, or normal accumulation of dirt or other contaminants.

PART 2 – PRODUCTS**2.1 MANUFACTURERS**

- A. Basis-of-Design Product: Provide joint sealant products manufactured by The Dow Chemical Company, Midland MI; (877) SEALANT, (877) 732-5268; email: construction@dow.com; website: dow.com/construction.

2.2 MATERIALS, GENERAL

- A. Compatibility: Provide joint sealants and accessory materials that are compatible with one another, with joint substrates, and with materials in close proximity under use conditions, as demonstrated by sealant manufacturer by testing and related experience.
- B. Joint Sealant Standard: Comply with ASTM C 920 and other specified requirements for each liquid-applied joint sealant
- C. Stain Test Characteristics: Where sealants are required to be nonstaining, provide sealants tested per ASTM C 1248 as non-staining on porous joint substrates indicated for Project.

Specifier: Joint sealants listed in the WEATHERPROOFING LIQUID SILICONE JOINT SEALANTS article are non-sag 100 percent silicone joint sealants with varying chemistry for use in non-traffic-bearing applications. Dow's product data sheets provide detailed guidance on the recommended applications for these joint sealants.

2.3 WEATHERPROOFING LIQUID SILICONE JOINT SEALANTS

DOWSIL™ Contractor's Concrete Sealant (CCS) is an economical, high-performance silicone weatherproofing joint sealant with high movement capability, low bondline stress, outstanding unprimed adhesion to most porous substrates, including concrete block, poured and precast concrete, brick, mortar, grout, plaster and ceramic tile. Primer is generally required on EIFS and metal.

- A. Single-Component, Nonsag, Neutral-Curing Silicone Joint Sealant: ASTM C 920, Type S, Grade NS, Class 50, for Use T2, NT, SWRI validation.
 - 1. Basis of Design Product: **DOWSIL™ Contractor's Concrete Sealant (CCS)**.
 - 2. Color: [As scheduled] [As selected by Architect from manufacturer's full line of not less than 7 colors] [Match Architect's custom color].

DOWSIL™ Contractor's Weatherproofing Sealant (CWS) is an economical, high-performance silicone weatherproofing joint sealant with balanced adhesive strength, medium modulus, and high recovery, outstanding unprimed adhesion to most nonporous substrates, including sealing dynamically moving joints such as expansion and control joints, concrete panel joints, tilt-up panel joints, curtainwall joints, perimeter caulking (windows, doors, panels, EIFS, bedding of mullions, panels, and frames, etc. Easily gunnable in a wide range of weather conditions. Primer generally required on mortar substrates.

- B. Single-Component, Nonsag, Neutral-Curing Silicone Joint Sealant: ASTM C 920, Type S, Grade NS, Class 40, for Use NT, SWRI validation.
 - 1. Basis of Design Product: **DOWSIL™ Contractor's Weatherproofing Sealant (CWS)**.
 - 2. Color: [As scheduled] [As selected by Architect from manufacturer's full line of not less than 20 colors] [Match Architect's custom color].

Specifier: Joint sealants listed in the INTERIOR LIQUID SILICONE JOINT SEALANTS article are non-traffic-bearing and non-sag, 100 percent silicone joint sealants with varying chemistry. Dow's product data sheets provide detailed guidance on the recommended applications for these joint sealants.

2.4 INTERIOR LIQUID JOINT SEALANTS

Specifier: **DOWSIL™ 786 Silicone Sealant** is a one-component, silicone rubber sealant that is mildew resistant when cured and is suitable for sealing tubs, showers, sinks, porcelain, cultured marble, glass, painted areas, and other nonporous surfaces and plumbing fixtures for both new and remedial construction. DOWSIL™ 786 Silicone Sealant is available in clear, white, translucent white, gray, and almond.

- A. Mildew-Resistant, Single-Component, Nonsag, Acid-Curing Silicone Joint Sealant: ASTM C 920, Type S, Grade NS, Class 25, for Use NT.
 - 1. Basis of Design Product: **DOWSIL™ 786 Silicone Sealant**.
 - 2. NSF Standard 51 and FDA Regulation No. 21 CFR 177.2600 compliant.
 - 3. Color: As selected by Architect from manufacturer's standard colors.

Latex joint sealant is frequently specified for interior, non-moving, paintable joints.

- B. Latex Joint Sealant: Siliconized acrylic latex, ASTM C 834, Type OP, Grade NF.

Butyl rubber joint sealant is frequently specified for interior and exterior non-moving concealed joints.

- C. Butyl-Rubber-Based Joint Sealant: ASTM C 1311.

2.5 ACCESSORIES

- A. Joint Substrate Primers: Substrate primer recommended by sealant manufacturer for application.
- B. Cylindrical Sealant Backing: ASTM C 1330, Type B non-absorbent, bi-cellular material with surface skin, or Type O open-cell polyurethane, as recommended by sealant manufacturer for application.
- C. Bond Breaker Tape: Polymer tape compatible with joint sealant materials and recommended by sealant manufacturer.

PART 3 – EXECUTION

3.1 EXAMINATION

- A. Examine joint profiles and surfaces to determine if work is ready to receive joint sealants. Verify joint dimensions are adequate for development of sealant movement capability. Proceed with joint sealant work once conditions meet sealant manufacturer's recommendations.

3.2 PREPARATION

- A. Joint Surface Cleaning: Clean joints prior to installing joint sealants using materials and methods recommended by sealant manufacturer.

3.3 APPLICATION

- A. Masking: Mask adjacent surfaces to prevent staining or damage by contact with sealant or primer.
- B. Joint Priming: Prime joint substrates when recommended by sealant manufacturer or when indicated by preconstruction testing or experience. Apply recommended primer using sealant manufacturer's recommended application techniques.
- C. Joint Backing: Select joint backing materials recommended by sealant manufacturer to be compatible with sealant material. Install backing material at depth required to produce profile of joint sealant allowing optimal sealant movement.
- D. Sealant Application: Install sealants using methods recommended by sealant manufacturer, in depths recommended for application. Apply in continuous operation from bottom to top of joint vertically and horizontally in a single direction. Apply using adequate pressure to fill and seal joint width.
- E. Cleaning: Remove excess sealant using materials and methods approved by sealant manufacturer that will not damage joint substrate materials.

END OF SECTION

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