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Supersedes all previous versions

Specifier editing notes and additional information is hidden by default. To view hidden text, see methods below.

1. Method 1: Activate “Show/Hide ¶” to reveal formatting symbols. The default shortcut for this setting is ctrl+* (ctrl+shift+8).
2. File > Options > Display, Check “Hidden Text.”

Specifier Note: This guide specification has been prepared using the *CSI*® (Construction Specification Instute) *MASTERFORMAT*® 2018 Edition.

The purpose of this guide specification is to assist the specifier in correctly specifying sealant products and execution. The specifier needs to edit the guide specifications to fit the needs of specific projects. Editable text fields are highlighted in orange for visibility. Contact a Henkel OSI® Specialist to assist in appropriate product selections.

This guide provides for a high performing and exceptional quality silane-modified polymer (SMP) sealant for various interior and exterior building construction applications. This sealant is formulated for maximum application performance requiring +/- 50% movement capabilities. This sealant also offers excellent weather sealing protection for most common construction materials including, but not limited to, the following: fiber-cement board, wood, vinyl siding, soffit assembly, crown molding, and PVC or wood-based trim, stucco, EIFS, precast, concrete, masonry, (brick or CMU) and metal.

DISCLAIMER: This Henkel Corporation Guide Specifications has been written as an aid to the professionally qualified specifier and design professional. The use of this guideline specification requires the sole professional judgment and expertise of the qualified specifier and design professional to adapt the information to the specific needs for the building owner and the project, to coordinate with their construction document process, and to meet all the applicable building codes, regulations, and laws. HENKEL EXPRESSLY DISCLAIMS ANY WARRANTY, EXPRESSED OR IMPLIED, INCLUDING THE WARRANTY OF MERCHANTABILITY OR FITNESS FOR PARTICULAR PURPOSE OF THIS PRODUCT FOR THE PROJECT.

OSI® QUAD MAX® Window, Door, & Siding Sealant.

SECTION 07 92 13 – Elastomeric Joint Sealant

PART 1 GENERAL

1.01 SUMMARY (Specifier Note: edit the following [A. This section includes the following] to meet project specific project applications and conditions.)

A. This section includes the following:
   1. Application of elastomeric joint sealant for exterior perimeter, control joints as indicated, including substrate preparation, sealant installation and cleanup of related installations

B. RELATED SECTIONS: (Specifier Note: edit the following [B. RELATED SECTIONS] to meet project specific applications and conditions. Specify section numbers in accordance with CSI MASTER FORMAT and section titles referenced. Remove any of the following that do not apply.)
   1. 01 00 00 General Requirement
   2. 04 20 00 Unit Masonry
   3. 06 10 00 Rough Carpentry
   4. 07 10 00 Dampproofing and Waterproofing
   5. 07 21 00 Thermal Insulation
   6. 07 26 00 Vapor Retarders

7. 07 27 00 Air Barriers
8. 07 62 00 Sheet Metal Flashing and Trim
9. 07 65 00 Flexible Flashing
10. 07 90 00 Joint Protection
11. 07 92 00 Joint Sealants
12. 08 00 00 Openings

1.02 REFERENCES

A. ASTM International (ASTM)
   1. ASTM D412 – Standard Test Methods for Vulcanized Rubber and Thermoplastic Elastomers – Tension
   2. ASTM C639 – Standard Test Method for Rheological (Flow) Properties of Elastomeric Sealants
   3. ASTM C661 – Standard Test Method for Indentation Hardness of Elastomeric-Type Sealants by Means of a Durometer
   4. ASTM C719 – Standard Test Method for Adhesion and Cohesion of Elastomeric Joint Sealants Under Cyclic Movement (Hockman Cycle)
   5. ASTM C794 – Standard Test Method for Adhesion-In-Peel of Elastomeric Joint Sealants
   6. ASTM C920 – Standard Specification for Elastomeric Joint Sealants
   7. ASTM C1183 – Standard Test Method for Extrusion Rate of Elastomeric Sealants
   8. C1193 – Standard Guide for Use of Joint Sealants
   9. C1382 – Determining Tensile Adhesion Properties of Sealants When Used in Exterior Insulation and Finish Systems

B. American Architectural Manufacturers Association (AAMA)
   1. AAMA 802.3 (Type II) – Ductile Back Bedding Compound
   2. AAMA 805.2 (Group C) – Bonding Back Bedding Compound
   3. AAMA 808.3 (Type I) – Exterior Perimeter Sealing Compound
   4. AAMA 713 – 08 Chemical Compatibility of Sealants and Self-Adhered Flexible Flashings

C. Federal Specification
   1. TT-S-00230C – SEALING COMPOUND, ELASTOMERIC TYPE, SINGLE COMPONENT (FOR CALKING, SEALING, AND GLAZING IN BUILDINGS AND OTHER STRUCTURES) (S/S BY A-A-1556) (SUPERSEDING TT-S-00230B)

D. Underwriter Laboratories, Inc. (UL)
   1. UL 723 – Test for Surface Burning Characteristics of Building Materials.
   2. UL *GREENGUARD*® certified – UL 2818 - 2013 Gold Standard for Chemical Emissions for Building Materials, Finishes and Furnishings

E. California Air Resources Board (CARB)

F. South Coast Air Quality Management District (SCAQMD)

1.03 SUBMITTALS

A. Refer to section 01 33 00 – Submittal Procedures (Specifier Note: Delete all that do

not apply or have not been submitted.)

1. 01 33 13 – Certificates
2. 01 33 16 – Design Data
3. 01 33 19 – Field Test Reporting
4. 01 33 23 – Shop Drawings, Product Data, and Samples
5. 01 33 26 – Source Quality Control Reporting
6. 01 33 29 – Sustainable Design Reporting

B. Product Technical Data: Submit most current manufacturer technical literature for each type of product used including the following, but not limited to:
   1. Preparation instructions and recommendations.
   2. Storage and handling requirements and recommendations.
   3. Installation methods.

C. Samples: All products specified. Verify performance criteria and installation procedure.

D. Quality Assurance Submittals
   1. Manufacturer Instructions: Provide manufacturer's written installation instructions.

1.04 QUALITY ASSURANCE

A. Installer Qualifications:
   1. Installer to comply with quality assurance articles referenced in ASTM C1193 for installation of elastomeric joint sealant.
   2. Installer shall have documented OSI® QUAD® Window and Door System Certification with the installation of OSI® QUAD® Window and Door System.
   3. Installation shall be in accordance with manufacturer's installation guidelines and recommendations.
   4. Installer shall have documented history of successful project execution and installation of said product.

B. Pre-Construction Mock-Up: (Specifier Note: Mock-ups are recommended for all projects using the OSI® QUAD MAX®. Mock-up requirement will likely be included in the specification section for the wall cladding and/or windows. Include OSI® QUAD MAX® as part of the required mock-up.)
   1. Construct mock-up prior to installation using OSI® QUAD MAX® Window, Door, & Siding Sealant including surface preparation per elastomeric joint sealant manufacturer's instructions. Obtain Architect/Engineer/Consultant or Owner's approval of joint treatments to establish adhesion, appearance, and workmanship standard.
      a. Mock-Up Size: insert mock up dimensions
      b. Mock-Up Substrate: insert substrate vertical surfaces as agreed to prior to Mock-up installation.
      c. Maintain mock-up during construction for workmanship standard.
      d. Mock-up to be incorporated into final construction upon Architect/Engineer/Consultant/Owner's written approval.

1.05 DELIVERY, STORAGE AND HANDLING

A. Deliver, store, handle, and protect all products in accordance with Section 01 60 00, Product Requirements. (Specifier Note: Review the following. Delete all that do not apply.)
    1. 01 61 00 – Common Product Requirements
    2. 01 64 00 – Owner-Furnished Products.
    3. 01 65 00 – Product Delivery Requirements
    4. 01 66 00 – Product Storage and Handling Requirements
        a. 01 66 13 – Product Storage and Handling Requirements for Hazardous Materials
        b. 01 66 16 – Product Storage and Handling Requirements for Toxic Materials

B. Deliver all OSI® QUAD MAX® materials and components in manufacturer's original, unopened, undamaged containers with identification labels intact.

C. Comply with manufacturer's ordering instructions and lead-time(s) required to avoid construction delays.

D. Store OSI® QUAD MAX® materials as recommended by manufacturer. Refer to manufacturer Technical Data Sheet (TDS) available at www.ositough.com.

1.06 PROJECT CONDITIONS

A. Environmental Requirements:
    1. Verify substrates and ambient air temperature at project site before, during, and after application to assure compliance with manufacturer's recommendations.
        a. Weather Conditions:
            i) Apply in accordance with manufacturer's instructions. Refer to product Technical Data Sheets (TDS) available at www.ositough.com.
            ii) Compliance: Follow manufacturer's specific safety, health and environmental recommendations per most recent Safety Data Sheets, technical bulletins, and instructions. Handle all solvents in compliance with applicable EPA, OSHA, and VOC requirements regarding health/safety standards.

1.07 WARRANTY

A. OSI® Limited Warranty:
    1. OSI® products are warranted by Henkel Corporation to be free from defects in materials when used as directed. Henkel's sole obligation shall be, at its option, to replace or refund the purchase price of product proven to be defective. Henkel makes no other warranty – express or implied – including warranties of MERCHANTABILITY and FITNESS FOR A PARTICULAR PURPOSE and will not be liable for consequential or incidental damages. This Limited Warranty gives you specific legal rights, which vary from state to state.
        a. For warranty assistance, contact Henkel at 1.800.624.7767 M-F 9:00 AM to 4:00 PM ET.
    2. Submit manufacturer's limited warranty at completion for projects that meet criteria to receive Manufacturers Limited Warranty.

a. Limited Warranty Areas: insert limited warranty areas per specifier note here (Specifier Note: Use warranty areas for description of work protected and areas of work excluded as required by project conditions.)

PART 2 PRODUCTS (Specifier Note: Product Information is proprietary to the OSI® QUAD MAX®. If additional products are required for competitive procurement, contact the Henkel Corporation for assistance – 1-800-624-7767, Mon. – Fri. 9:00AM – 4:00PM ET)

2.01 MANUFACTURERS

A. Approved Manufacturer/Distributor:
   1. Henkel Corporation:
      a. Address: 26235 First Street, Westlake, OH 44145
      b. Phone: 1-866-591-2178
      c. Web Address: http://www.ositough.com.

2.02 MATERIALS (Specifier Note: Sealant product listed has been tested for compatibility and intermittent contact with OSI® QUAD® Butyl Flash and OSI® QUAD® Flash. Edit for specific project as appropriate when sealants are specified within this section.)

A. Description: OSI® QUAD MAX® – Window, Door, and Siding, Sealant:
   1. Appearance: non-slumping paste.
   2. Color: specify specific project color(s)
   3. Composition: Silyl-terminated polyether
   4. Flashing system applications: Elastomeric joint sealant for creating bedding, control, and fillet joints during the installation of window, doors, and siding.
   5. Flashpoint: 224.6° F (107° C)
   6. VOC Content (CARB): 2.48%
      a. SCAQMD rule 1168 36 g/L, maximum
   7. Shelf Life: 24 months from date of manufacture (unopened)

B. Application Properties:
   1. Surface and ambient application temperatures: 0°F (-18°C) and 140°F (60°C)
      a. For easier extrusion of sealant at lower temperatures, store cartridge at room temperature at least 24 hours prior to use
   2. Skin Formation Time: 17-20 minutes (At 72°F and 70% relative humidity)
      a. Cure time is dependent on temperature, humidity and depth of sealant applied
   3. Tack-free Time: 15 hours (At 72°F and 70% relative humidity)
   4. Cure Time: 24-72 hours
      a. Cure time is dependent on temperature, humidity and depth of sealant applied
   5. Extrusion Rate (ASTM C1183 [Procedure A]): 42 ml/min
   6. Vertical Sag (ASTM C639): 0 inches

C. Performance Properties:
   1. Service Temperature: -14°F (-25°C) to 158°F (70°C)
   2. 180° Peel Adhesion (ASTM C794):
      a. 47.6 lb./in PVC Trim
      b. 47.0 lb./in Fiber Cement
      c. 51.1 lb./in Coated (Painted) Aluminum Flashing

d. 54.7 lb./in Vinyl Siding
e. 42.0 lb./in Mortar

3. Hardness (ASTM C661): Shore A, 32
4. Cyclic Movement (ASTM C719): 50% (+/-50 percent movement)
5. Tensile Strength (ASTM D412): 234 PSI
6. Elongation (ASTM D412): 577%

2.03 ACCESSORIES:

A. General:
1. Verify compatibility of any product that makes physical contact with or is used in combination with OSI® QUAD MAX®. (Specifiers Note: Remove sections below that do not apply to project specific conditions. Include additional sections that aren't explicitly outlined below but are part of project scope and conditions.)

B. Product Specific Application Equipment & Tools
1. 10oz Caulk Gun or Sausage Gun
2. Utility Knife

C. Adhesive Primers: Use primers only as recommended by elastomeric joint sealant manufacturer where required for adhesion of sealant to joint substrates indicated and as determined for use from pre-construction mock-up testing. (Specifier Note: Edit the following. Installer shall use manufacturer approved adhesive primer and verify compatibility. Specify manufacturer approved primer below. Delete this section if primer is not specified.)
1. Specify manufacturer approved adhesive primer.

D. Bond-breaker tape: Polyethylene tape or other approved plastic tape as recommended by elastomeric joint sealant manufacturer to prevent 3-sided joint adhesion to rigid, in-flexible joint fillers or filet joint surfaces at back of joint where such adhesion would restrict proper sealant movement or result in sealant failure.(Specifier Note: Edit the following. Installer shall use manufacturer approved bond-breaker tape and verify compatibility. Specify manufacturer approved bond-breaker tape below. Delete this section if bond-breaker tape is not specified.)
1. Specify manufacturer approved bond breaker tape

E. Masking tape: Non-staining, non-absorbent and compatible with elastomeric joint sealants and adjacent surfaces. (Specifier Note: Edit the following. Installer shall use manufacturer approved masking tape and verify compatibility. Specify manufacturer approved masking tape below. Delete this section if masking tape is not specified.)(Specifier Note: Edit the following. Installer shall use manufacturer approved masking tape and verify compatibility. Specify manufacturer approved masking tape below. Delete this section if masking tape is not specified.)
1. Specify masking tape.

F. Cylindrical Sealant Backer Rod: Provide joint backings that meet ASTM C-1330, Type C (closed cell) sized 1/8" larger than the width of the joint or Type B (soft cell, non-absorbent bi-cellular backing materials with surface skin) sized 1/8" larger than the joint width up to 5/8" width, then 1/4" larger than the joint width for 3/4" width and larger with proper density to control sealant depth and profile. Follow elastomeric joint

sealant manufacturer's recommendations with backer rod selections for optimum elastomeric joint sealant performance.

1. **Note:** Installer shall not use "open cell" backer rod material in combination with the use of OSI® QUAD MAX® Joint Sealant or OSI® QUAD® Foam. Contact designated manufacturer representative for questions or concerns. (Specifier Note: Edit the following. Installer shall use manufacturer approved backer rod and verify compatibility. Specify manufacturer approved backer rod below. Delete this section if backer rod is not specified.)
2. Specify manufacturer approved backer rod

PART 3 EXECUTION

3.01 EXAMINATION

A. Verify substrate and surface conditions are in accordance with elastomeric joint sealant manufacturer recommended tolerances prior to installation

B. Review requirements for sequencing the installation of elastomeric joint sealant assembly with installation of windows, doors, louvers, and wall penetrations to provide a weather-tight flashing assembly.

3.02 PREPARATION

A. General:
   1. Installer shall refer to manufacturer approved installation instructions and individual product Technical Data Sheets (TDS) for required environmental installation conditions and surface/substrate preparation. www.ositough.com

3.03 INSTALLATION

A. General:
   1. For comprehensive installation instruction, refer to ***OSI® INSTALLATION GUIDE***.
      a. Follow this link to download the OSI® Installation Guide
         i) Contact Henkel Sales Representative for any additional assistance with the *OSI® Installation Guide*, training, and installation scenarios not explicitly outlined within *OSI® Installation Guide*.
         ii) For additional information refer to product Technical Data Sheets (TDS) available at www.ositough.com.

3.04 FIELD QUALITY CONTROL

A. Notify manufacturer's designated representative to obtain periodic observations of elastomeric joint sealant installation.

B. Field Adhesion testing is recommended for unverified or unapproved substrates. Contact designated manufacturer representative for consultation.

3.05 CLEANING AND PROTECTION

A. For additional information refer to product Technical Data Sheets (TDS) available at www.ositough.com.

END OF SECTION