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1. Method 1: Activate “Show/Hide ¶” to reveal formatting symbols. The default shortcut for this setting is ctrl+* (ctrl+shift+8).
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Specifier Note: This guide specification has been prepared using the CS® (Construction Specification Institute) 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 is for residential and commercial flashing applications in conjunction with weather resistant barrier assemblies. This flashing system will offer protection for the building envelope by providing a water-resistant barrier around penetrations and rough openings.

This residential/commercial flashing system is specifically designed for above grade, vertical wall surface openings or penetrations where the wall assembly may consist of any of the following: exterior-grade gypsum sheathing, exterior plywood sheathing, oriented strand board (OSB) sheathing and masonry wall construction.

OSI® QUAD® Window & Door System and is used to insulate and seal around windows and door frames. It can also be used for jambs, mud sills, header joints, corner joints, top plate penetrations, electrical and plumbing penetrations and other areas where air infiltration or heat loss may occur. Bonds most building materials including vinyl, aluminum, fiberglass, wood, OSB, PVC, concrete, 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® Window and Door Flashing System
SECTION 07 14 16 – Cold Fluid Applied Waterproofing,
SECTION 07 27 36 – Sprayed Foam Air Barrier
SECTION 07 65 26 – Self-Adhering Sheet Flashing
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 (for use in window and door flashing applications):
1. OSI® QUAD® FLASH: Application of Cold Fluid Applied Waterproofing.
 2. OSI® QUAD® FOAM: Application of Sprayed Foam Air Barrier.
 3. OSI® QUAD® BUTYL Flash: Application of Self-Adhering Sheet Flashing.
 4. OSI® QUAD MAX®: Application of Elastomeric Joint Sealant.
- 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
13. 09 96 00 High-Performance Coatings

1.02 REFERENCES (Specifier Note: edit the following [1.2 REFERENCES]. 1.2 REFERENCES shall only include the sections required .)

A. OSI® QUAD® Window and Door System

1. ASTM International
 - a. ASTM C920; Standard Specification for Elastomeric Joint Sealants
 - b. ASTM C1193; Standard Guide for Use of Joint Sealants
 - c. ASTM E84 Standard Test Method for Surface Burning Characteristics of Building Materials
 - d. ASTM E2357; Standard Test Method for Determining Air Leakage of Air Barrier Assemblies.
 - e. ASTM E2178; Standard Test Method for Air Permeance of Building Materials.
 - f. ASTM E283; Standard Test Method for Determining the Rate of Air Leakage Through Exterior Windows, Curtain Walls, and Doors Under Specified Pressure Differences Across the Specimen.
 - g. ASTM E1677; Specification for Air Retarder (AR) Material or System for Low-Rise Framed Building Walls
 - h. ASTM E331; Standard Test Method for Water Penetration of Exterior Windows, Skylights, Doors, and Curtain Walls by Uniform Static Air Pressure Difference
 - i. ASTM E96; Test Method for Water Vapor Transmission of Materials
 - j. ASTM E331; Standard Test Method for Water Penetration of Exterior Windows, Skylights, Doors, and Curtain Walls by Uniform Static Air Pressure Difference.
 - k. ASTM E2112; Standard Practice for Installation of Exterior Windows, Doors and Skylights

B. OSI® QUAD® Flash

1. ASTM International (ASTM)
 - a. ASTM C297 – Standard Test Method for Flatwise Tensile Strength of

- Sandwich Constructions
- b. ASTM C794 – Standard Test Method for Adhesion-in-Peel of Elastomeric Joint Sealants
- c. ASTM C1305 – Standard Test Method for Crack Bridging Ability of Liquid-Applied Waterproofing Membrane
- d. ASTM D1970 – Standard Specification for Self-Adhering Polymer Modified Bituminous Sheet Materials Used as Steep Roofing Underlayment for Ice Dam Protection
- e. ASTM D2247 – Standard Practice for Testing Water Resistance of Coatings in 100 % Relative Humidity
- f. ASTM E84 – Standard Test Method for Surface Burning Characteristics of Building Materials (CLASS A BUILDING MATERIAL)
- g. ASTM E96 – Standard Test Methods for Water Vapor Transmission of Materials
- h. ASTM E331 – Standard Test Method for Water Penetration of Exterior Windows, Skylights, Doors, and Curtain Walls by Uniform Static Air Pressure Difference
- i. ASTM E2357 – Standard Test Method for Determining Air Leakage Rate of Air Barrier Assemblies
- j. ASTM G154 – Standard Practice for Operating Fluorescent Ultraviolet (UV) Lamp Apparatus for Exposure of Nonmetallic Materials

2. American Architectural Manufacturers Association (AAMA)
 - a. AAMA 711 – Voluntary Specification for Self-Adhering Flashing Used for Installation of Exterior Wall Fenestration Products
 - b. AAMA 714-12 – Voluntary Specification for Liquid-Applied Flashing Used to Create a Water-Resistive Seal Around Exterior Wall Opening in Buildings
 - c. FMA/AAMA 100 – Standard Practice for the Installation of Windows with Flanges or Mounting Fins Wood Frame Construction for Membrane Drainage Systems
 - d. FMA/AAMA 300 – Standard Practice for Installation of Exterior Doors in Wood Frame Construction for Extreme Wind/Water Exposure
3. Air Barrier Association of America (AABA)
 - a. Air Barrier Association of America Acceptance Criteria for Liquid Applied Membranes (Tested as part of an assembly)
4. American Association of Textile Chemists and Colorists (AATCC)
 - a. AATCC TM127-2017(2018)e: Test Method for Water Resistance: Hydrostatic Pressure
5. California Air Resources Board (CARB)
6. South Coast Air Quality Management District (SCAQMD)

C. OSI® QUAD® Window and Door Foam

1. ASTM International (ASTM)

- a. ASTM E2112 – Standard Practice for Installation of Exterior Windows, Doors and Skylights.
 - b. ASTM C 518 – Standard Test Method for Steady-State Thermal Transmission Properties by Means of the Heat Flow Meter Apparatus.
 - c. ASTM E 84 – Standard Test Method for Surface Burning Characteristics of Building Materials.
 - d. ASTM E 96 – Standard Test Methods for Water Vapor Transmission of Materials.
 - e. ASTM E 283 – Standard Test Method for Determining Rate of Air Leakage Through Exterior Windows, Curtain Walls, and Doors Under Specified Pressure Differences Across the Specimen.
 - f. ASTM E 285 – Standard Test Method for Assemblies, Properties, and Materials in response to heat and flame under controlled laboratory conditions.
 - g. ASTM E 2178 – Standard Test Method for Air Permeance of Building Materials.
 - h. ASTM D 1622 – Standard Test Method for Apparent Density of Rigid Cellular Plastics.
2. American Architectural Manufacturers Association (AAMA)
 - a. AAMA 504 – Voluntary Laboratory Test Method to Qualify Fenestration Installation Procedures
 - b. AAMA 800-08 Voluntary Specifications and Test Methods for Sealants
 - c. AAMA 812 04 Voluntary Specifications of Single Component Aerosol Expanding Polyurethane Foams for Sealing Rough Openings of Fenestration Openings.
 3. Underwriters Laboratories, Inc.
 - a. (UL) 723 - Test for Surface Burning Characteristics of Building Materials.
 4. California Air Resources Board (CARB)
 5. South Coast Air Quality Management District (SCAQMD)

D. OSI® QUAD® Butyl Flash

1. ASTM International
 - a. ASTM E2112 – Standard Practice for Installation of Exterior Windows, Doors and Skylights
 - b. ASTM D1970 – Standard Specification for Self-Adhering Polymer Modified Bituminous Sheet Materials Used as Steep Roofing Underlayment for Ice Dam Protection
 - c. ASTM D3330 – Standard Test Method for Peel Adhesion of Pressure-Sensitive Tape
2. American Architectural Manufacturers Association (AAMA)
 - a. AAMA 711-07; Voluntary Specifications for Self-Adhering Flashing used for Exterior Wall Fenestration Products

E. OSI® QUAD MAX®

1. ASTM International (ASTM)
 - a. ASTM D412 – Standard Test Methods for Vulcanized Rubber and Thermoplastic Elastomers – Tension
 - b. ASTM C639 – Standard Test Method for Rheological (Flow) Properties of Elastomeric Sealants
 - c. ASTM C661 – Standard Test Method for Indentation Hardness of Elastomeric-Type Sealants by Means of a Durometer
 - d. ASTM C719 – Standard Test Method for Adhesion and Cohesion of Elastomeric Joint Sealants Under Cyclic Movement (Hockman Cycle)
 - e. ASTM C794 – Standard Test Method for Adhesion-In-Peel of Elastomeric Joint Sealants
 - f. ASTM C920 – Standard Specification for Elastomeric Joint Sealants
 - g. ASTM C1183 – Standard Test Method for Extrusion Rate of Elastomeric Sealants
 - h. ASTM C1193 – Standard Guide for Use of Joint Sealants
 - i. ASTM C1382 – Determining Tensile Adhesion Properties of Sealants When Used in Exterior Insulation and Finish Systems
2. American Architectural Manufacturers Association (AAMA)
 - a. AAMA 802.3 (Type II) – Ductile Back Bedding Compound
 - b. AAMA 805.2 (Group C) – Bonding Back Bedding Compound
 - c. AAMA 808.3 (Type I) – Exterior Perimeter Sealing Compound
 - d. AAMA 713 – 08 Chemical Compatibility of Sealants and Self-Adhered Flexible Flashings
3. Federal Specification
 - a. 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)
4. Underwriter Laboratories (UL)
 - a. UL *GREENGUARD*® certified – UL 2818 - 2013 Gold Standard for Chemical Emissions for Building Materials, Finishes and Furnishings
 - b. (UL) 723 - Test for Surface Burning Characteristics of Building Materials.
5. California Air Resources Board (CARB)
6. 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. Qualifications
1. Installer to comply with quality assurance articles referenced in ASTM E2112, ASTM C1299, and ASTM C1193 for installation of all components of the OSI® QUAD® Window and Door Flashing System.
 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 Window and Door System. Mock-up requirement will likely be included in the specification section for the wall cladding and/or windows. Include flashing system as part of the required mock-up.)
1. Install mock-up prior to installation using components of the OSI® QUAD® Window and Door System including surface preparation per component 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 mockup dimension measurement
 2. Mock-Up Substrate: insert substrate vertical surfaces as agreed to prior to Mock-up installation.
 3. Maintain mock-up during construction for workmanship standard.
 4. 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® Window and Door System 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® Window and Door System 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 Window and Door Flashing System. 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 MANUFACTURER

- A. Approved Manufacturer:
 1. Henkel Corporation:
 - a. Address: 26235 First Street, Westlake, OH. 44145
 - b. Phone: 1-866-591-2178
 - c. Web Address: <http://www.ositough.com>
 - B. Substitution Limitations: (Specifier Note: Delete one of the following [1, 2], Selection of window and door flashing system components is based on a proprietary strategy of product deployment specified by Henkel / OSI. Any request for substitution must be submitted a minimum of 10 days prior to Bid for written approval by Architect/Engineer/or Consultant. Request received after this date will not be accepted. Coordinate with Section 01 25 00 and 01 60 00 Product requirements for product selection and substitution procedures.)
 1. Substitutions: Not Permitted
 2. Substitution: **specify accepted substitution**

2.02 MATERIALS (Specifier Note: Review the following section. Delete products not required for project. Include data for any approved product replacements.)

A. Cold Fluid Applied Waterproofing

1. Description: OSI® QUAD® Flash Liquid Applied Flashing Membrane – Gun grade, trowel on waterproofing sealant for window and door flashing:
 - a. Appearance: Viscous paste
 - b. Color: Yellow
 - c. Composition: Silyl-terminated Polyether
 - d. Flashing System Applications: Seal service penetrations and joints in fire separations and firewalls to prevent the passage of flames, smoke, and fumes under actual fire conditions of 1, 2, and 3 hour fire resistance rated systems.
 - e. VOC Content (CARB): 2.2%
 - i) SCAQMD rule 1168 30 g/L, maximum
 - f. Flash Point: >200°F (>93°C)
 - g. 12 months from date of manufacture (unopened)
2. Application Properties:
 - a. Surface and ambient application temperatures: 40°F (4°C) and 110°F (43°C) during application and cure
 - i) Product may be applied to frost-free substrates at temperatures

- below 32°F (0°C) but will not start to cure until temperature rises to and remains above 32°F (0°C)
 - b. Skin Time: 20-40 minutes (Time is dependent on temperature, humidity and thickness of flashing applied)
 - c. Cure Time: 4-6 hours (At 70°F (21°C) & 50% relative humidity [Time is dependent on temperature, humidity and thickness of flashing applied])
- 3. Performance Properties:
 - a. Required Application Thickness: 12-15 mil
 - b. Service Temperature: -75°F to 300°F (-59°C to 149°C)
 - c. Hardness (ASTM D661): Shore A, 35–45
 - d. Tensile Strength (ASTM D412): >150 psi
 - e. Elongation (ASTM D412): >350%
 - f. Water Vapor Transmission (ASTM E96): 21 perms
 - i) Air Leakage of Air Barrier Assemblies (ASTM E2357 [Product tested as part of assembly]): 0.105 L/s.m² @ 75 Pa
 - g. Surface Burning Characteristics (ASTM E88): [Class A Building Material]
 - i) Flame Spread: 15
 - ii) Smoke Development: 10
 - iii) Air Leakage of Air Barrier Assemblies (ASTM E2357):
 - 0.0105 L/s·m² at 75 Pa (Product tested as part of assembly)

B. Sprayed Foam Air Barrier (Specifier Note: Sealant product listed has been tested for compatibility and intermittent contact with OSI Butyl Flash and OSI QUAD Flash. EDIT for specific project as appropriate when sealants are specified within this section.)

1. Description: OSI® QUAD® Window and Door Foam – Low Expansion, Low Compression Spray Polyurethane Foam
 - a. Appearance: Minimal expansion foam
 - b. Color: Tan
 - c. Composition: Single Component Polyurethane Spray Foam
 - d. Flashing System Applications: Perimeter Seal for Window and Door Openings
 - e. Flash Point: -155.2°F (-104°C)
 - f. VOC Content (CARB): 16% by weight
 - i) SCAQMD rule 1168 177 g/L
 - g. Shelf Life: 18 months from date of manufacture (unopened)
2. Application Properties:
 - a. Product storage (at least) 12 hours prior to application:
 - i) 41°F (5°C) and 77°F (25°C)
 - ii) For best results, store at room temperature.
 - iii) During application, working environment and
 - b. Surface and ambient temperatures: 14°F (-10°C) and 86°F (30°C). during application and cure
 - c. Tack-free Time: Approx. 8 to 10 minutes (At 73°F and 70% relative humidity)
 - i) Cure time is dependent on temperature, humidity and depth of sealant applied

- d. Cut Time Gun: Approx. 25-35 minutes
 - i) Cure time is dependent on temperature, humidity and depth of sealant applied
 - e. Cure Time: Approx. 24 hours
 - i) Cure time is dependent on temperature, humidity and depth of sealant applied
3. Performance Properties:
- a. Service Temperature: -40°F (-40°C) to 194°F (90°C)
 - b. Surface Burning (ASTM E 84):
 - i) Flame Spread: 10
 - ii) Smoke Development: 25
 - c. Pressure Build Up: AAMA 812,
 - i) 0.2471 psi
 - ii) Deflection: 0.0050 in.
 - d. Flash Point: -155.2°F (-104 °C)

C. Self-Adhering Sheet Flashing:

1. Basis of Design: OSI® QUAD® Butyl Flash – rubberized, butyl backed, self-adhering flashing tape
2. Uncured Properties:
 - a. Appearance:
 - i) Face material: Black High Density Polyethylene (HDPE)
 - ii) Face color: Black with printed logo
 - b. Adhesive composition: Rubberized butyl adhesive
 - c. Thickness: 19-22 mil.
 - d. Release Liner: 1-piece polymer film
 - e. Dimensions:
 - i) 4in. X 75ft.
 - ii) 6in. X 75ft.
 - iii) 9in. X 75ft.
 - f. Shelf Life: 12 months from date of manufacture
3. Application Properties:
 - a. install in conditions and to substrates above 25°F (-4 °C)
 - i) Cold weather applications may require use of a spray adhesive to promote adhesion
4. Performance Properties
 - a. Service Temperature: -30°F (-34°C) to 200°F (93°C)
 - b. UV Resistance: 120 days maximum exposure.
 - c. Peel Strength (ASTM D 3330 METHOD F):
 - i) Plywood: ≥1.5 lb./in
 - ii) OSB ≥1.5 lb./in
 - iii) PVC ≥ 1.5 lb./in
 - iv) House wrap ≥ 1.5 lb./in
 - AAMA 711 – 20 Section 4.6, 16.0 – Passed

- d. Water Penetration Resistance Around Nails (ASTM D1970):
 - i) AAMA 711-20 Section 5.2.1 – Passed

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

- 1. Description: OSI® QUAD MAX® – Window, Door, and Siding, Sealant
 - a. Appearance: non-slumping paste.
 - b. Color: specify specific project color(s)
 - c. Composition: Silyl-terminated polyether
 - d. Flashing system applications: Elastomeric joint sealant for creating bedding, control, and fillet joints during the installation of window, doors, and siding.
 - e. Flashpoint: 224.6° F (107° C)
 - f. VOC Content (CARB): 2.48%
 - i) SCAQMD rule 1168 36 g/L, maximum
 - g. Shelf Life: 24 months from date of manufacture (unopened)
- 2. Application Properties:
 - a. Surface and ambient application temperatures: 0°F (-18°C) and 140°F (60°C)
 - i) For easier extrusion of sealant at lower temperatures, store cartridge at room temperature at least 24 hours prior to use
 - b. Skin Formation Time: 17-20 minutes (At 72°F and 70% relative humidity)
 - i) Cure time is dependent on temperature, humidity and depth of sealant applied
 - c. Tack-free Time: 15 hours (At 72°F and 70% relative humidity)
 - d. Cure Time: 24-72 hours
 - i) Cure time is dependent on temperature, humidity and depth of sealant applied
 - e. Extrusion Rate (ASTM C1183 [Procedure A]): 42 ml/min
 - f. Vertical Sag (ASTM C639): 0 inches
- 3. Performance Properties:
 - a. Service Temperature: -14°F (-25°C) to 158°F (70°C)
 - b. 180° Peel Adhesion (ASTM C794):
 - i) 47.6 lb./in PVC Trim
 - ii) 47.0 lb./in Fiber Cement
 - iii) 51.1 lb./in Coated (Painted) Aluminum Flashing
 - iv) 54.7 lb./in Vinyl Siding
 - v) 42.0 lb./in Mortar
 - c. Hardness (ASTM C661): Shore A, 32
 - d. Cyclic Movement (ASTM C719): 50% (+/-50 percent movement)
 - e. Tensile Strength (ASTM D412): 234 PSI
 - f. Elongation (ASTM D412): 577%

2.03 ACCESSORIES

- A. General:
1. Verify compatibility of any product substitutions (if any) that are approved for use with this system. (Specifier 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. OSI® QUAD® Flash: Liquid Applied Flashing Membrane
 - a. Sausage Gun
 - b. Trowel
 2. OSI® QUAD® Foam: Window & Door Installation Foam
 - a. OSI® QUAD® Foam Applicator Gun
 - b. OSI® FOAM Clean – Foam and Applicator Cleaner
 3. OSI® QUAD® Butyl Flash: Butyl Window & Door Tape
 - a. Utility knife
 - b. Measuring Tools
 - c. J-Roller
 4. OSI® QUAD MAX®: Window, Door, and Siding Sealant
 - a. 9.5oz Caulk Gun or Sausage Gun
 - b. Utility Knife
- C. Adhesive Primers: Use primers only as recommended by flashing system 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 Adhesive Primer.
- D. Bond-breaker tape: Polyethylene tape or other approved plastic tape as recommended by flashing system manufacturer to prevent 3-sided joint adhesion to rigid, in-flexible joint fillers or fillet joint surfaces at back of joint where such (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 bond-breaker tape.
- E. Cylindrical Sealant Backer Rod: Provide joint backings that meet ASTM C1330, 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 flashing system 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
- F. Masking tape: non-staining, non-absorbent and compatible with 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.)
1. Specify manufacturer approved masking tape.

PART 3 EXECUTION

3.01 EXAMINATION

- A. Verify substrate and surface conditions are in accordance with OSI® QUAD® Window and Door System manufacturer recommended tolerances prior to installation. Refer to Manufacturer installation instructions or Technical Data Sheets (TDS).
www.ositough.com
- B. Review requirements for sequencing of installation of OSI® QUAD® Window and Door System 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 designated manufacturer 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 flexible flashing assembly installation.

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

END OF SECTION