

PART 1 General

1.01 SECTION INCLUDES

- .1 Seismic Transition strip. Preformed, pre-compressed, self-expanding, compression type joint seal system. Seals provided with factory applied, coloured, UV stabilized, silicone sealant on exposed faces. Watertight, energy efficient, interior, above grade, wall application.
- .2 Seal to accommodate seismic movements. Seal is anchored by the back pressure inherent in the elastic foam core.

1.02 RELATED SECTIONS

- .1 Section 07 95 13 - Expansion Joint Cover Assemblies.
- .2 Section 07 92 10 - Joint Sealants.

1.03 REFERENCES

- .1 American Society for Testing and Materials International (ASTM).
 - .1 ASTM C661-15. Standard Test Method for Indentation Hardness of Elastomeric-Type Sealants by Means of a Durometer.
 - .2 ASTM E283-04(2012). Standard Test Method for Determining Rate of Air Leakage Through Exterior Windows, Curtain Walls, and Doors Under Specified Pressure Differences Across the Specimen.
 - .3 ASTM E330/E330M-14. Standard Test Method for Structural Performance of Exterior Windows, Doors, Skylights and Curtain Walls by Uniform Static Air Pressure Difference.
 - .4 ASTM E331-00(2016). Standard Test Method for Water Penetration of Exterior Windows, Skylights, Doors, and Curtain Walls by Uniform Static Air Pressure Difference.

1.04 DESIGN REQUIREMENTS

- .1 Design seals to exceed ASTM E330 (procedure A) and ASTM E331 with no deflection at both positive and negative pressures up to 4954 Pascals.
- .2 Design seal to accommodate temperature range from minus 40 degrees C to plus 85 degrees C.
- .3 Joint movement: design to permit unrestricted lateral, vertical or omnidirectional movement of up to +/-50% (total 100%) of joint width. Nominal joint width: 50 mm. Design seal to accommodate simultaneous movement in vertical and horizontal directions.
- .4 Design seals to meet the following:
 - .1 Capable of withstanding 65 degrees C for 3 hours while compressed down to the minimum of movement capability dimension of the basis of design product (-50% of nominal material size) without evidence of any bleeding of impregnation medium from the material.
 - .2 The same material after the heat stability test and after being cooled to room temperature will subsequently self-expand to the maximum of movement capability dimension of the basis-of-design product (+50% of nominal material size) within 24 hours at room temperature 20 degrees C.

- .5 Design seals to have a maximum air permeability of 0.0078 liters per second per square meter at 75 Pascals in accordance with ASTM E283.
- .6 Provide certified Test reports from independent Testing Laboratories confirming that the products exceed the specified performance requirements.

1.05 SUBMITTALS

- .1 Provide submittals in accordance with Section 01 33 00 - Submittal Procedures.
- .2 Submit Product Data Sheets for each type of seal. Include manufacturer's specifications and standard Product Data Sheets. Provide profiles, dimensions, anchorage details, available colours and accessories. Indicate lengths, accessories. Indicate locations. Indicate details for butt joints and splices. Indicate mitres, layout of the work, affected adjacent construction.
- .3 Provide Installation Instructions. Indicate Manufacturer's special installation requirements, including rough-in sizes. Indicate required tolerances for item placement.
- .4 Provide samples. Submit duplicate 300 mm long sample pieces of seals in each colour selected.
- .5 Submit typical expansion joint drawings indicating pertinent dimensions, general construction, expansion joint opening dimensions and product information.
- .6 Provide product certificates signed by manufacturer certifying materials comply with specified performance characteristics and criteria and physical requirements.

1.06 DELIVERY, STORAGE AND HANDLING

- .1 Deliver, store and handle materials in accordance with Section 01 61 00 - Common Product Requirements.
- .2 Deliver products to site in Manufacturer's original, intact, labeled containers. Handle and protect as necessary to prevent damage or deterioration during shipment, handling and storage. Store in accordance with manufacturer's installation instructions.
- .3 Waste Management and Disposal. Separate and recycle waste materials for reuse and recycling in accordance with Section 01 74 21 - Construction/Demolition Waste Management and Disposal. Remove from site and dispose of packaging materials at appropriate recycling facilities.

1.07 AMBIENT CONDITIONS

- .1 Maintain air temperature and structural base temperature at installation area above 20 degrees for 48 hours before, during and 48 hours after installation.

PART 2 Products

2.01 MATERIALS

- .1 Core: self expanding, open cell polyurethane foam impregnated with a water based, non-drying, 100 % acrylic dispersion. Core to be free from any waxes or wax compounds.
- .2 Sealant: factory applied to foam core. U/V stabilized, factory cured, low-modulus silicone. Integral coloured. Colour: grey, selected by Consultant from full range of available colours. Apply sealant to the foam while it is partially compressed to a width greater than maximum joint extension and cured before final compression. When the seal is compressed to final dimension, the sealant will create a bellows to accommodate joint movement. Hardness: Shore A durometer hardness 25 plus or minus 5 units to ASTM C661.

- .3 Sealant: exposed joints in accordance with Section 07 92 10 - Joint Sealants.

2.02 FABRICATION

- .1 Fabricate in maximum practical lengths to minimize splices and joints. Provide seal pre-compressed to slightly less than the nominal joint size. Package in shrink wrapped with mounting adhesive applied to one face.
- .2 Provide factory manufactured universal 90 degree corner units. Minimum 300 mm long and 150 mm long alternate leg lengths. Provide corner units at each directional change and terminations into horizontal plane surfaces.

PART 3 Execution

3.01 MANUFACTURER'S INSTRUCTIONS

- .1 Comply with manufacturer's written data, including product technical bulletins, product catalogue installation instructions, product carton installation instructions, and data sheets.
- .2 Verify existing conditions before starting work. Verify that field measurements are correct and are within the tolerances as permitted by the manufacturer. Verify that joint preparation and affected dimensions are acceptable. Ensure sound and clean substrates before commencing installation.

3.02 INSTALLATION

- .1 Install seals in accordance with Manufacturer's written instructions. Provide properly formed and prepared joint openings constructed to the dimensions indicated.
- .2 Clean the joint opening of all contaminants immediately prior to installation of seal. Repair spalled, irregular or unsound surfaces using accepted industry practices for repair of the substrates in question. Remove protruding roughness to ensure joint sides are smooth. Ensure that there is sufficient depth to receive the full depth of the seal plus a minimum of 12 mm for the application of corner beads.
- .3 Set work plumb, square, level, free from distortion. Align work plumb and level and flush with adjacent surfaces.
- .4 Seal butt joints to manufacturer's instructions to provide watertight and light tight joints using sealant.
- .5 No drilling, or screwing, or fasteners of any type are permitted to anchor the sealant system into the substrate.
- .6 Apply continuous corner bead of sealant at edges of seal to provide airtight connection between seal and edges of joint.
- .7 Protect the system and its components during construction.

3.03 CLEANING

- .1 Clean exposed surfaces with a suitable cleaner that will not harm or attack the finish.
- .2 Upon completion of installation, remove surplus materials, rubbish, tools and equipment barriers.
- .3 Remove traces of primer, caulking, sealants and filler materials.

END OF SECTION