

SECTION 07910

PREFORMED JOINT SEALS

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Sealing of joints specified in Schedule at end of Section.

1.2 RELATED SECTIONS

- A. Section 07900 - Joint Sealers: Gunnable and pourable joint sealants.

1.3 REFERENCES

- A. ASTM D 816 - Standard Test Methods for Rubber Cement.
- B. ASTM D 1000 - Standard Test Methods for Pressure-Sensitive Adhesive-Coated Tapes Used for Electrical and Electronic Applications.
- C. ASTM D 3574 - Standard Test Methods for Flexible Cellular Materials--Slab, Bonded, and Molded Urethane Foams.
- D. ASTM G 53 - Standard Practice for Operating Light- and Water-Exposure Apparatus (Fluorescent UV-Condensation Type) for Exposure of Nonmetallic Materials.
- E. DIN 4062 - Cold Processable Plastic Jointing Materials for Sewerdrains; Jointing Materials for Prefabricated Parts of Concrete, Requirements, Testing, and Processing; Deutsches Institut fur Normung.
- F. DIN 18055 - Windows; Air Permeability of Joints, Watertightness, Mechanical Strain, Requirements, and Testing; Deutsches Institut fur Normung.
- G. DIN 53571 - Testing of Flexible Cellular Materials; Tensile Strength Testing; Determination of Tensile Strength and Elongation at Break; Deutsches Institut fur Normung.
- H. UL 94 - Tests for Flammability of Plastic Materials for Parts in Devices and Appliances.

1.4 SUBMITTALS

- A. Submit under provisions of Section 01300.
- B. Product Data: Manufacturer's data showing product characteristics and application methods.
- C. Selection Samples: Color charts for color selection.

1.5 QUALITY ASSURANCE

- A. Installer Qualifications: Trained and experienced in the installation of this type of sealant.

1.6 DELIVERY, STORAGE, AND HANDLING

- A. Deliver joint seals to site in manufacturer's original unopened containers; store and move to installation location in original containers.
- B. Store materials in dry, enclosed area, off the ground, out of direct sunlight.
- C. Store materials at minimum of 68 degrees F (20 degrees C) and maximum of ... degrees F (... degrees C) for at least 24 hours prior to installation, regardless of temperature at location of installation.

1.7 WARRANTY

- A. Provide manufacturer's 10-year warranty against product defects.

PART 2 PRODUCTS

2.1 MANUFACTURERS

- A. Provide products of Sandell Manufacturing Co., Inc., 399 W. Main Street, Amsterdam, NY 12010. ASD. Tel: (518) 843-0093. Fax: (518) 843-0148.
- B. Requests for substitutions will be considered in accordance with provisions of Section 01600.
- C. Substitutions: Not permitted.

2.2 MATERIALS

- A. Preformed Joint Seals - Performance Requirements:
1. Ultraviolet light resistant.
 2. Mildew resistant.
 3. Non-staining and non-bleeding to adjacent materials.
 4. Resistant to gasoline, diesel fuel, jet fuel, solvents, salts, anti-freeze, industrial cleaners, corrosive vapors, and acids.
 5. Flammability (UL 94): HF1, self-extinguishing.
 6. Tensile strength (ASTM D 3574): 21.8 psi (150 kPa), min.
 7. Compression set (ASTM D 3574): 2 percent, max.
 8. Shear strength: 8 N/cu cm, min.
 9. Peel strength (ASTM D 1000, 0.25 revolutions per minute): 12 N/25 mm.
 10. Elongation (DIN 53571): 300 percent, minimum.
 11. Resistant to penetration of tree roots in accordance with DIN 4062.
 12. Air permeability at 20 percent compression (DIN 18055): 0.017 cu m/hr/m, maximum.
 13. Resistance to aging (ASTM G 53, 825 hrs): No more than minor surface degradation.
 14. Softening point (ASTM D 816): 50 degrees C, minimum.
- B. Preformed Joint Seals (for Exterior Use): Sandell "Polyseal"; precompressed, self-expanding polyurethane foam impregnated with modified acrylic fire retardant, water repellent polymer, with self-adhesive faces.
1. Density: 10 lb/cu ft (160 kg/cu m).
 2. Thickness: Selected by Contractor for minimum 80 percent material compression, based on manufacturer's data and expected width of actual joints under most extreme conditions.
 3. Color: Black.
- C. Preformed Joint Seals (for Interior Use): Sandell "Polyseal"; precompressed, self-expanding polyurethane foam impregnated with modified acrylic fire retardant, water repellent polymer, with self-adhesive faces.
1. Density: 5 to 6 lb/cu ft (80 to 96 kg/cu m).
 2. Thickness: Selected by Contractor for minimum _____ percent material compression, based on manufacturer's data and expected width of actual joints under most extreme conditions.
 3. Color: Black.
- D. Joint Sealant for Application over Preformed Joint Seals: As specified in Section 07900.

PART 3 EXECUTION

3.1 EXAMINATION

- A. Verify that:
 - 1. Joints are clean, dry, sound, smooth, straight and parallel, and otherwise ready to receive joint seals.
 - 2. Joint seals are of the correct width to provide specified compression.
 - 3. Joints are of sufficient depth.
- B. Do not proceed with installation until detrimental conditions have been corrected.

3.2 PREPARATION

- A. Clean and prime joints where required or recommended by manufacturer.
- B. Install bond breaker on back surface of joint if necessary.

3.3 INSTALLATION

- A. Install joint seals in accordance with manufacturer's instructions.
- B. Do not install joint seals when temperature is below 0 degrees F (-17 degrees C) or above 95 degrees F (35 degrees C).
- C. Do not install joint seals in rain or snow.
- D. Do not use scrap material.

3.4 SCHEDULE

- A. Preformed Joint Seals (Exterior): Use in the following locations:
 - 1. Joints in horizontal wearing surfaces.
 - 2. Expansion and control joints in exterior walls.
 - 3. Below grade joints in foundation walls.
 - 4. Exterior joints around door and window openings.
 - 5. Concealed joints in metal curtain wall, metal panels, and similar applications.
 - 6. Joints in copings and parapets.

7. Other joints indicated to be sealed, that are not specified to be sealed with another material.
8. All other joints in exterior envelope that are not specified to be sealed with another material, whether indicated to be sealed or not.

B. Preformed Joint Seals (Interior): Use in the following locations:

1. Interior joints around door and window openings in exterior walls.
2. Interior joints in exterior walls.
3. Expansion and control joints in interior partitions.
4. Other interior joints indicated to be sealed.

END OF SECTION