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**PART 1 GENERAL****1.1 SUMMARY**

## A. Section Includes:

1. Sealant for Subslab Expansion Joints, and Other Exterior Concrete Slab Expansion Joints.

**1.2 REFERENCES**

## A. ASTM — American Society for Testing and Materials:

1. C 661 — Test Method for Indentation Hardness of Elastomeric-Type Sealants by Means of a Durometer.
2. C 920 — Specification of Elastomeric Joint Sealants.
3. C 1193 — Guide for Use of Joint Sealants.
4. D 1557 — Test Method for Laboratory Compaction Characteristics of Soil Using Modified Effort.

**1.3 DEFINITIONS**

## A. Acceptance, Acceptable, or Accepted: Acceptance by the Owner's Representative in writing.

**1.4 SUBMITTALS**

## A. LEED Submittals:

1. Within 30 days of Contract award, assemble and submit all LEED material information on the "LEED Material Tracking Spreadsheets" and forms provided in the Project Manual, together with all supplemental documentation as required by LEED.

## B. Environmental Submittals:

1. Credit IEQ 4.1: If field applied, provide manufacturer's MSDS or technical data sheet showing a printed statement of VOC content for all adhesives and sealants used on the project and demonstrating compliance with SCAQMD Rule #1168, effective July 1, 2005 and amended January 7, 2005. Provide manufacturer's product data for aerosol adhesives, including the printed statement of VOC content that demonstrates compliance with the limits defined in Green Seal standard GS-36, in effect October 19, 2000.

## C. Product Data:

1. Sealant.
2. Bond Breaker.
3. Joint Primers.

## D. Samples:

1. Applied Sealant Colors.
2. Bond Breaker.

**1.5 QUALITY ASSURANCE**

## A. Contractor Qualifications: Use adequate numbers of skilled workers who are thoroughly trained and experienced in the necessary crafts and who are completely familiar with the specified requirements and the methods needed for proper performance of the Work of this Section.

**1.6 WARRANTY**

## A. General Description: Refer to Division 1.

## B. Additional Items Covered: Warranty shall also cover repair of damage to other materials and workmanship resulting from defects in materials and workmanship.

- C. Exceptions: Contractor shall not be held responsible for failures due to ordinary wear, abuse or neglect by Others, vandalism, and other causes outside the Contractor's control.

## **PART 2 PRODUCTS**

### **2.1 MATERIALS**

- A. Performance/Design Criteria:
1. Environmental Requirements:
    - a. Credit IEQ 4.1: All VOC containing materials applied on site inside of the waterproofing barrier shall comply with LEED credits EQ 4. Provide adhesives and sealants with VOC content and chemical component limits not exceeding the content limits defined by SCAQMD Rule #1168, July 1, 2005, amended January 1, 2005 and Green Seal GS-36, effective October 19, 2000 for aerosol adhesives as applicable.
- B. Sealant for Expansion Joints: ASTM C 920, Type M, Grade NS, Class 25, Use T; multi- component; cold-applied; chemically-curing; elastomeric; polyurethane; suitable for water immersion; available in at least 6 different shades of standard or custom colors; and with a minimum 40 Shore A hardness per ASTM C 661. Submit samples of 9 colors of applied sealant selected by the Landscape Architect for review. The Owner's Representative will select from colors submitted.
- C. Backer Rod: Non-absorbent, non-staining and specifically recommended for this installation by the sealant manufacturer.
- D. Joint Primers: Use only those primers which have been tested for durability on the surfaces to be sealed and are specifically recommended for this installation by the manufacturer of the sealant used.
- E. Masking Tape: For masking around joints, provide an appropriate masking tape which will effectively prevent application of sealant on surfaces not scheduled to receive it, and which is removable without damage to substrate.
- F. Bond Breakers: Use only those bond breakers which are specifically recommended by the sealant manufacturer.

## **PART 3 EXECUTION**

### **3.1 EXAMINATION**

- A. General: Examine site and verify that conditions are suitable to receive Work and that no defects or errors are present which would cause defective installation of products or cause latent defects in workmanship and function.
- B. Joint Size Verification: Verify that the required proportion of width of joint to depth of joint has been provided.
- C. Notification of Unsuitable Conditions: Before proceeding with Work, notify the Owner's Representative in writing of unsuitable conditions.

### **3.2 PREPARATION**

- A. Protection:
1. Use every possible precaution to prevent damage to existing conditions to remain such as structures, utilities, irrigation systems, plant materials and paving on or adjacent to the site of the work.
  2. Provide barricades, fences or other barriers as necessary to protect existing conditions to remain from damage during construction.
  3. Use every possible precaution to prevent excessive compaction of planting area soil within or adjacent to the areas of Work.
  4. Do not store materials or equipment, permit burning, or operate or park equipment under the branches of existing plants to remain.
  5. Submit written notification of conditions damaged during construction to the Owner's Representative immediately.

## B. Preparation of Concrete Surfaces:

1. Clean surfaces to be dry, sound, free from dust, concrete residue and other materials which could weaken bond or conflict with sealant width and depth.
2. At open joints, remove dust by mechanically blown compressed air if required.
3. Remove oil and grease, use sandblasting or wire brushing.
4. Where surfaces have been treated, remove the surface treatment by sandblasting or wire brushing.

**3.3 INSTALLATION**

## A. Priming:

1. Meet requirements of the manufacturer's current printed instructions.
2. Meet requirements of ASTM C 1193, except where in conflict with manufacturer's instructions.

## B. Bond-Breaker Installation:

1. Meet requirements of the manufacturer's current printed instructions.
2. Provide bond-breaker where recommended by the manufacturer of the sealant, and where indicated by the Drawings.

## C. Backer Rod Installation:

1. Install backer rod where indicated on the Drawings.
2. Do not install backer rod at paving.
3. Use a blunt-surfaced tool of wood or plastic, having shoulders designed to ride on the adjacent finished surface and a protrusion of the required dimensions to assure uniform depth of backer-rod material below the sealant.
4. Do not use a screwdriver or similar sharp-ended tool to install backer-rod material.
5. Using the blunt-surfaced tool, smoothly and uniformly place the back-rod material to the depth required by the sealant manufacturer's current printed installation instructions, compressing the backer-rod material to no more than 25percent and securing a positive fit.
6. Avoid lengthwise stretching of the backer-rod material.
7. Do not twist or braid backer-rod stock.

## D. Masking: Thoroughly and completely mask joints on exposed surfaces.

## E. Equipment:

1. Apply sealant under pressure with power-actuated hand gun or manually-operated hand gun, or by other appropriate means.
2. Use guns with nozzle of proper size, and providing sufficient pressure to completely fill the joints as designed.

## F. Sealant Thickness: Meet requirements of the manufacturer's current printed instructions.

## G. Tooling Sealant:

1. Tool sealant to insure complete filling of the joint to eliminate air pockets and voids and to insure positive adhesive of the sealant with the bonding surfaces.
2. Tool joints to the profile shown on the Drawings or if such profiles are not shown on the
3. Drawings provide uniformly smooth joints with slightly concave surface.
4. Do not use tooling agent unless specifically recommended in writing by the sealant manufacturer.

**3.4 CLEANING**

- A. Sealant Residue: Before it hardens, clean sealant from adjacent surfaces as the installation progresses, using solvent or cleaning agent recommended by the manufacturer of the sealant used.

**END OF SECTION**