



## XHBN.FF-D-2016 Joint Systems

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- Authorities Having Jurisdiction should be consulted in all cases as to the particular requirements covering the installation and use of UL Listed or Classified products, equipment, system, devices, and materials.
- Authorities Having Jurisdiction should be consulted before construction.
- Fire resistance assemblies and products are developed by the design submitter and have been investigated by UL for compliance with applicable requirements. The published information cannot always address every construction nuance encountered in the field.
- When field issues arise, it is recommended the first contact for assistance be the technical service staff provided by the product manufacturer noted for the design. Users of fire resistance assemblies are advised to consult the general Guide Information for each product category and each group of assemblies. The Guide Information includes specifics concerning alternate materials and alternate methods of construction.
- Only products which bear UL's Mark are considered as Classified, Listed, or Recognized.

### Joint Systems

[See General Information for Joint Systems](#)

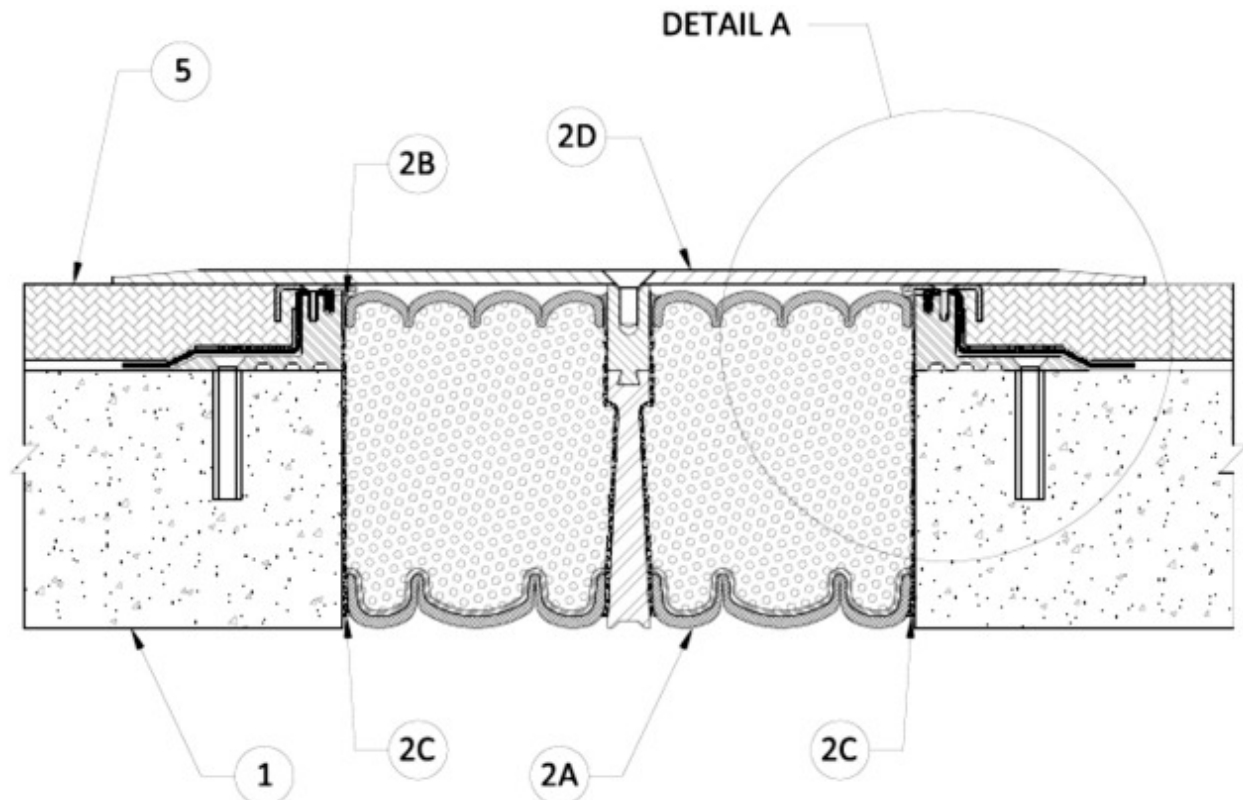
#### System No. FF-D-2016

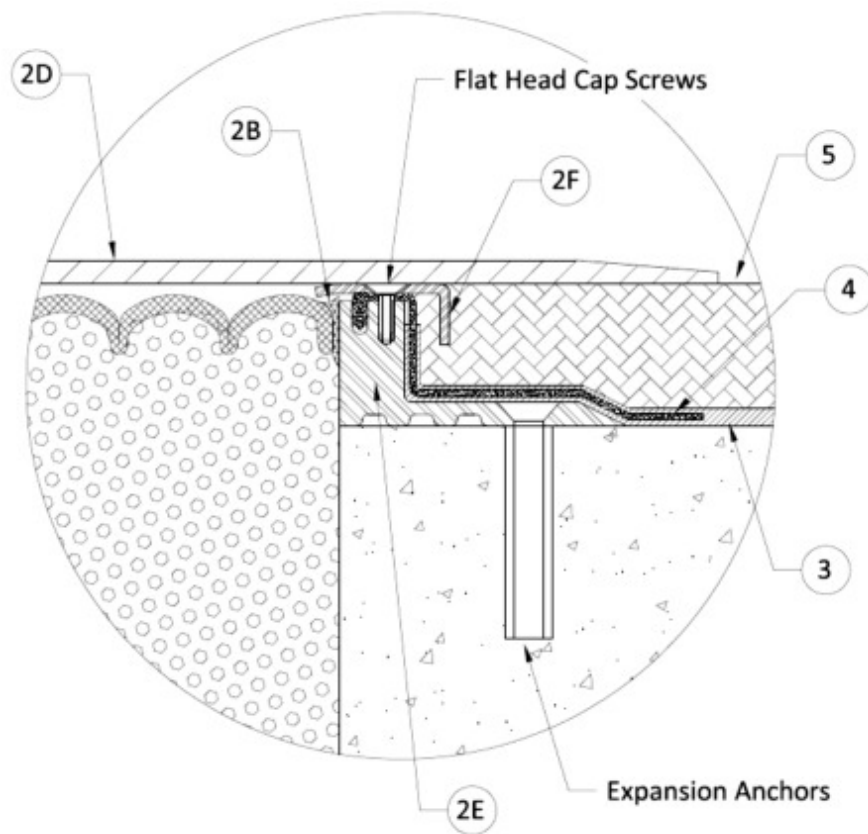
November 18, 2010

Assembly Rating — 2 Hr

Nominal Joint Width — 7 to 10 in.

Class II & III Movement Capabilities — 50% Compression and Extension





## DETAIL A

1. **Floor Assembly** — Min 4-1/2" in. (114 mm) thick reinforced normal weight or lightweight (100-150 pcf, or 1600-2400 kg/cu meter), structural concrete.

2. **Joint System** — Nominal width of joint is 7 to 10 in. (175 to 250 mm). The joint system is designed to accommodate a max 50 percent compression or extension from its installed width. The joint system shall consist of the following:

A. **Forming Material\*** — Compressed, fire-retardant impregnated, 5-5/16 in. (135 mm) deep foam. Topside of foam is coated with Silicone and underside is coated with intumescent overlaid by a coat of Silicone. Foam is installed in joint opening as a permanent form.

**EMSEAL LLC** — SJS-FP-FR2 Mechanical joint system.

B. **Sealant Band** — (Optional) — Watertight 3/4 in. (19 mm) deep silicone sealant band and corner bead supplied by joint system manufacturer, and installed in accordance with installation instruction.

C. **Epoxy adhesive** — Consists of two parts; part A (base), and part B (hardener). The epoxy is supplied by joint system manufacturer, and installed in accordance with manufacturer's installation instructions.

D. **Coverplate** — Minimum 1/4 in (6 mm) thick by maximum 18 in (457 mm) Aluminum or Stainless Steel Coverplate. Coverplate is fastened to top of joint system by self-tapping 18-8, (3/8" or 10 mm diam. by 1" or 25 mm long) stainless steel flat head cap screws at 12 in (305 mm) OC.

E. **Aluminum Angle** — Minimum 1-1/2" by 3 in (38 by 77 mm) extruded aluminum angle, long leg placed horizontally on top of the concrete slab. Thickness of horizontal and vertical legs are 1/4 in (6 mm) and 11/16 in (17.5 mm) respectively. The underside of the horizontal leg is grooved and placed on an epoxy bed. The angle is anchored to the concrete slab using 5/16 in (8 mm) diameter, 2-1/2 in (64 mm) long flat head, counter sunk, expansion anchor spaced at 12 in (305 mm) OC.

F. **Capping Strip** — Stainless Steel Capping Strip fastened to the Aluminum Angle (Item E) using self-tapping minimum 1/8 in (3.2 mm) diameter stainless steel flat head cap screw at 12 in (305 mm) OC

3. **Roofing Membrane** — Roofing membrane may be PVC, Hot Rubberized Asphalt, or Rubber.

4. **Side Sheet** — PVC side sheet tied into the Roofing Membrane (Item 3) according to Manufacturer's Install

Instructions.

5. **Roof Topping** — 1-1/2 in (38 mm) thick poured concrete, precast concrete, or masonry pavers installed into mortar.

\*Bearing the UL Classification Mark

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