



XHBN.FW-D-1079 Joint Systems

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Design/System/Construction/Assembly Usage Disclaimer

- 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](#)

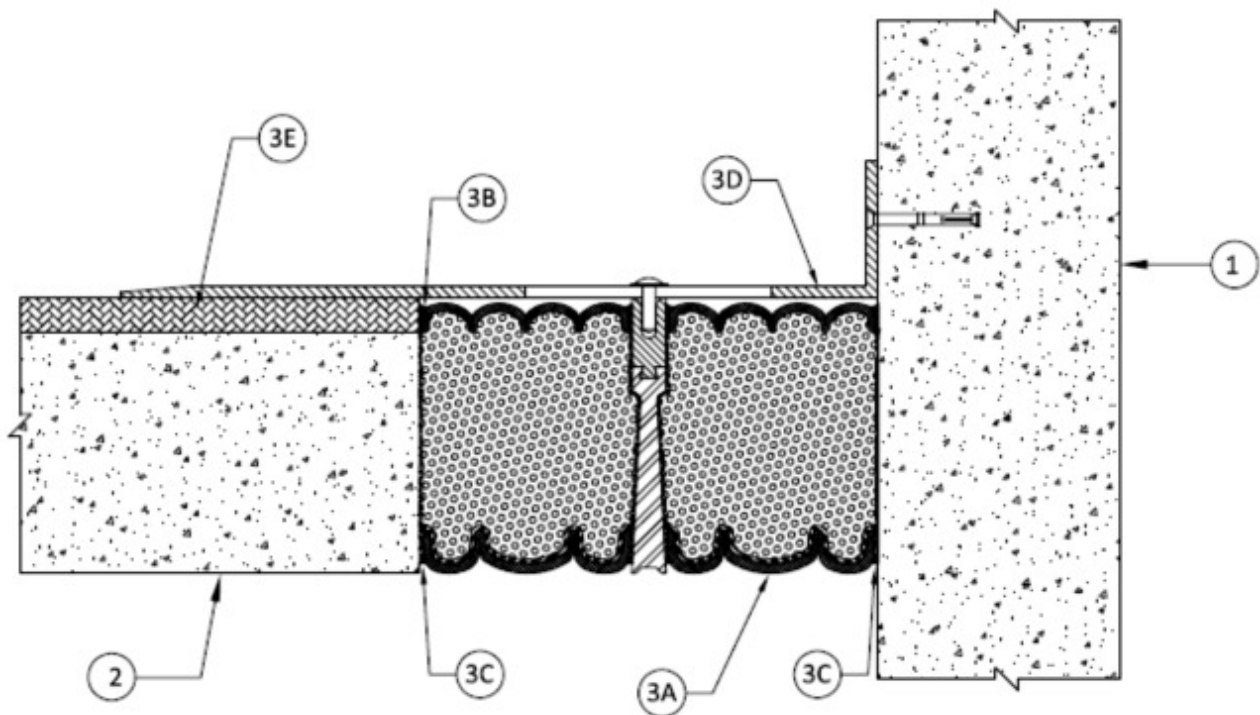
System No. FW-D-1079

April 08, 2011

Assembly Rating — 1 Hr

Nominal Joint Width — 4 to 6 in.

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



1. **Wall Assembly** — Min 6 in. (150 mm) thick reinforced normal weight or lightweight (100-150 pcf, or 1600-2400 kg/cu meter) structural concrete. Wall may also be constructed of any UL Classified **Concrete Blocks***.

See **Concrete Blocks** (CAZT) category in the Fire Resistance Directory for names of manufacturers.

2. **Floor Assembly** — Min 6 in. (150 mm) thick reinforced normal weight or lightweight (100-150 pcf, or 1600-2400 kg/cu meter) structural concrete.

3. **Joint System** — Nominal width of joint is 4 to 6 in. (100 to 150 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-FR1 Mechanical joint system.

B. **Sealant Band** — (Optional) — Watertight ¾ 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 ¼ in (6 mm) thick Aluminum or Stainless Steel L-shaped coverplate. The horizontal leg of the coverplate is 16-1/2 in (419 mm) long. The vertical leg of the coverplate is 3 in (76 mm) long. The foam is fastened to Coverplate by a 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. The slotted hole for the self-tapping screw connecting the foam to the Coverplate is 5 in (127 mm) long. The vertical leg of the Coverplate is fastened to the wall by a minimum ½ in (13 mm) diameter stainless steel expansion anchor spaced horizontally at 12 in (305 mm) OC. If **Concrete Blocks*** are used, (Item 1), the course of blocks receiving the expansion anchors shall be grouted solid.

E. **Nosing** — (Optional) — ¾" (19 mm) thick by maximum 6-1/2" (165 mm) wide Polyurethane nosing installed according to manufacturer's install instructions.

*Bearing the UL Classification Mark

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