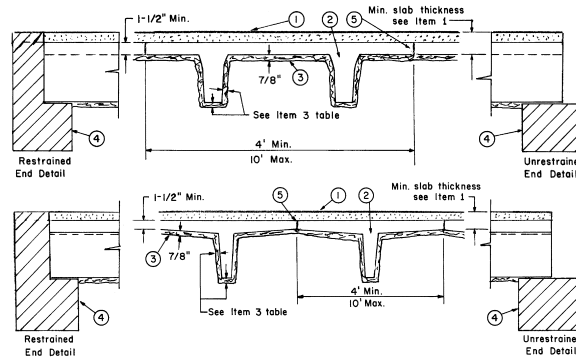


Design No. J804

Restrained Assembly Ratings — 2, 3 and 4 Hr. (See Items 1, 3 and 3A)
 Unrestrained Assembly Ratings — 2, 3 and 4 Hr. (See Items 1, 3 and 3A)



1. **Concrete Topping** — (Optional) — 3000 psi compressive strength, 110 to 153 pcf unit weight. Minimum topping thickness — 1 in.

| Rating Hr | Min Total Thkns of Concrete In. |
|-----------|---------------------------------|
| 2 | 2 |
| 3 | 3-1/2 |
| 4 | 4-5/8 |

- 2. **Precast Concrete Units*** — Normal weight concrete. Single or double stemmed units bearing the UL Classification Marking containing Design No. J941 or J944 or bearing the UL Classification Marking J804. See Precast Concrete Units Category for names of manufacturers.
- 3. **Spray-Applied Fire Resistive Materials*** — Applied by spraying with water, in one or more coats, to a final untamped thickness as shown above and in the tables below, to concrete surfaces which are free of dirt and oil. Tamping is optional. Min avg untamped density of 13 pcf with min ind untamped density of 11 pcf for Types II or DC/F. Min avg and min ind untamped densities of 22 and 19 pcf, respectively, for Type HP. For method of density determination refer to Design Information Section.

| UL Classification Marking on Precast Concrete Unit | Restrained & Unrestrained Assembly Rating Hr | Spray Applied Fire Resistive Mtl Thk on Stems |
|----------------------------------------------------|----------------------------------------------|-----------------------------------------------|
| J941 | 2 Hr. | 3/4 in. |
| J941 | 3 Hr. | 1-3/16 in. |
| J804-A | 2 Hr. | 13/16 in. |
| J804-B | 2 Hr. | 3/4 in. |
| J804-B | 3 Hr. | 1-3/16 in. |
| J804-C | 2 Hr. | 9/16 in. |
| J804-C | 3 Hr. | 1 in. |
| J804-D | 2 Hr. | 7/16 in. |
| J804-D | 3 Hr. | 7/8 in. |
| J804-E | 2 Hr. | 5/16 in. |
| J804-E | 3 Hr. | 11/16 in. |
| J804-E | 4 Hr. | 1-1/8 in. |
| J804-F | 2 Hr. | 5/16 in. |
| J804-F | 3 Hr. | 3/8 in. |
| J804-F | 4 Hr. | 13/16 in. |
| J944 | 3 Hr. | 7/16 in. |
| J944 | 4 Hr. | 7/8 in. |

ISOLATEK INTERNATIONAL —Types D-C/F, HP or Type II, Type EBS or Type X adhesive/sealer optional.

- 3A. As an alternate to Item 3 - **Spray-Applied Fire Resistive Materials*** — For maximum 3 hour ratings only - Applied by mixing with water and spraying in one or more coats to the thicknesses shown in the table above (Item 3), to concrete surfaces which are clean and free of dirt, loose scale and oil. Use of Type PC Pre-coat is required prior to the application of Type 300, 300AC, 300ES, 300HS, 300N or SB. Type PC Pre-coat shall be applied to cover approx 70 percent of the surface. Thickness of Type PC Pre-coat is included in the total thickness of the protection material. Min average and min individual density of 15 and 14 pcf, respectively. For method of density determination, see Design Information Section, Sprayed Material.

BERLIN CO LTD — Types 300, 300ES, 300N or SB.
 ISOLATEK INTERNATIONAL —Types 300, 300AC, 300ES, 300HS, 300N, SB and PC.
 LUCKY CORE INSULATING MATERIALS
 MANUFACTURING L L C —Types 300, 300ES, 300N, or SB.
 NEWKEM PRODUCTS CORP —Types 300, 300ES, 300N, and SB.

- 3B. As an alternate to Item 3 and Item 3A - **Spray-Applied Fire Resistive Materials*** — For maximum 3 hour ratings only - Applied by mixing with water and spraying in one or more coats to the thicknesses shown in the table above (Item 3), to concrete surfaces which are clean and free of dirt, loose scale and oil. Use of Type PC Pre-coat is required prior to the application of Type 300TW or 400. Type PC Pre-coat shall be applied to cover approx 70 percent of the surface. Thickness of Type PC Pre-coat is included in the total thickness of the protection material. Min average and min individual density of 17.5 and 16 pcf, respectively, for Types 300TW. Min average and min individual density of 22 and 19 pcf, respectively, for Type 400. For method of density determination, see Design Information Section, Sprayed Material.

ISOLATEK INTERNATIONAL — Types 300TW or 400
 LUCKY CORE INSULATING MATERIALS
 MANUFACTURING L L C —Type 400.
 NEWKEM PRODUCTS CORP —Type 400.

- 4. **Min Bearing** — 3 in.
- 5. **Grout** — Sand cement grout, 3500 psi, along full length of joint unless concrete topping is used. Weld tie plates may be used in conjunction with grout.

*Bearing the UL Classification Mark