

Column Design Nos. [X790](#), [Y729](#).

Types 300, SB may be trowel-applied provided the materials are first mixed and pumped through standard application equipment as outlined in the manufacturer's application instructions. The minimum thickness and minimum in-place density of the Types 300 and SB stated in the individual designs shall be maintained.

Type 400 Spray-Applied Fire Resistive Material for use in:

Floor-Ceiling Design Nos. [D759](#), [D859](#), [D860](#), [D902](#), [D904](#), [D921](#), [D942](#), [D947](#), [D974](#), [D976](#), [D977](#), [D984](#), [G705](#), [J708](#), [J710](#), [J804](#), [J805](#), [J809](#), [J957](#) and

Roof-Ceiling Design Nos. [P675](#), [P676](#), [P719](#), [P723](#), [P744](#), [P752](#), [P826](#), [P901](#), [P902](#), [P907](#), [P908](#), [P920](#), [P922](#), [P923](#) and

Beam Design Nos. [N735](#), [N759](#), [N761](#), [S721](#), [S729](#) and

Column Design No. [X790](#).

Type 400 may be trowel-applied provided the materials are first mixed and pumped through standard application equipment as outlined in the manufacturer's application instructions. The minimum thickness and minimum in-place density of the Type 400 stated in the individual designs shall be maintained.

Type 800 Spray-Applied Fire Resistive Material investigated for exterior use in:

Floor-Ceiling Design Nos. [D744](#), [D902](#), [D974](#) and

Roof-Ceiling Design Nos. [P819](#), [P908](#) and

Beam Design Nos. [N742](#), [N760](#), [S720](#) and

Column Design No. [Y714](#).

Types M-II, TG Spray-Applied Fire Resistive Materials investigated for exterior use in:

Floor-Ceiling Design Nos. [D744](#), [D781](#), [D902](#), [D922](#), [D974](#), [D976](#), [D977](#), [J809](#) and

Roof-Ceiling Design Nos. [P720](#), [P721](#), [P819](#), [P826](#), [P908](#), [P922](#) and

Beam Design Nos. [N742](#), [N755](#), [N760](#), [N858](#), [S720](#), [S723](#) and

Column Design Nos. [X764](#), [X768](#), [XR704](#), [XR729](#), [XR730](#).

Type M-II may be trowel applied provided the Type M-II is first mixed with and pumped through standard application equipment as outlined in the manufacturer's application instructions. The minimum thickness and minimum in-place density of the Type M-II stated in the individual designs shall be maintained.

Type M-II/P Spray-Applied Fire Resistive Material investigated for exterior use in:

Floor-Ceiling Design Nos. [D744](#) and [D902](#).

Beam Design No. [N742](#).

Column Design No. [X764](#), [X768](#), and [XR725](#).

Type M-II/P may be trowel applied provided the Type M-II/P is first mixed with and pumped through standard application equipment as outlined in the manufacturer's application instructions. The minimum thickness and minimum in-place density of the Type M-II/P stated in the individual designs shall be maintained.

Types D-C/F, II, HP, 300, SB, 300AC, 300ES, 300HS, 300N, 3000, 3000ES, 400AC, 400ES and 400 Spray-Applied Fire Resistive Materials for application with or without Type EBS or Type X adhesive/sealer. Refer to specific Design to determine if Type EBS or Type X adhesive/sealer is required. For information on Type EBS or Type X adhesive/sealer refer to Adhesives category (BYWR), Isolatek International.

Other Conditions of Use

The following conditions of use apply only to the conditions described and apply only to the UL Classified Isolatek International spray-applied fire-resistive materials (SFRM) listed. For further technical assistance regarding field issues, contact the technical service staff of Isolatek International. Authorities Having Jurisdiction should be consulted as to the particular requirements covering the installation and use of UL Listed or Classified products, equipment, systems, devices and materials.

1. Patching

Types 280, 300, 300AC, 300ES, 300HS, 300N, SB, 3000, 3000ES, 304, 404, 400, 400AC, 400ES, 800 and M-II may be hand patched in all designs, in areas up to 144 sq. in., following the guidelines listed below:

A.) The material used for patching is of the same Type designation as the material being patched.

B.) The material may be hand mixed and trowel applied as required for patching and repair surfaces where the area of the patch will not exceed 144 square inches.

C.) All areas to be patched must be cleaned, down to the substrate, of loose, poorly adhered material including dirt and any other foreign material.

D.) The material is keyed into the material surrounding the patch. It should be understood that the integrity of the surrounding material shall not have been impaired and must be pre-wetted prior to applying the patching material.

E.) All manufacturer's application instructions of the Spray-Applied Fire Resistive Material being used to patch the area must be followed.

F.) If Type EBS or Type X adhesive/sealer is required in the fire resistance design, it must be applied to the substrate prior to the patching material. Type EBS adhesive is required on fluted steel deck that does not contain concrete and on all cellular decks.

G.) The minimum in-place density and minimum thickness of the material, as specified in the fire resistance design, must be maintained.

H.) The bond strength of the material maintains the minimum value established by the manufacturer along with the requirements for Spray Applied Fire Resistive Materials in the front of the UL Fire Resistance Directory.

I.) Any clips or hangers being patched around are totally encased in material at the point of attachment to the structural member at a thickness equal to or greater than that being applied to the structural member.

J.) Where applications will exceed 144 square inches, the materials may be trowel-applied without limitation provided they are first mixed and pumped through standard application equipment as outlined in the manufacturer's application instructions and then sprayed into a suitable container. From the container, the material may be troweled in accordance with the thickness and densities as specified in the fire resistance design.

K.) Type P may be used to hand patch Types DC/F, II or HP in all designs, limited to a maximum area of 432 sq. in., or in all designs protected with Types 280, 300, 300AC, 300ES, 300HS, 300N, SB, 3000, 3000ES, 400, 400AC or 400ES limited to a maximum area of 144 sq. in. following the guidelines B through I listed above. Type P must be mixed and applied as outlined in the manufacturer's application instructions in order to achieve the thickness and density required in the specific design. The Type P material is keyed into the material surrounding the patch. It should be understood that the integrity of the surrounding material shall not have been impaired and must be pre-wetted prior to applying the patching material. The minimum average density of Type P shall be 17.5 pcf.

L.) Type TG may be used to hand patch Type M-II in all designs without limitation. The Type TG must be mixed and applied as outlined in the manufacturer's application instructions in order to achieve the thickness and density required in the specific design. The Type TG material is keyed into the material surrounding the patch. It should be understood that the integrity of the surrounding material shall not have been impaired and must be pre-wetted prior to applying the patching material.

M.) No alternate patching materials or compounds by other manufacturers may be used.

2. Surface Coatings

Surface coatings such as water-based latex, vinyl acrylic, urethane or chlorinated rubber coatings may be used as overspray on Types D-C/F, II, HP, 300, 300AC, 300ES, 300HS, 300N, 3000, 3000ES, 400AC, 400ES, 400, M-II, TG and M-II/P. If used, the coatings are intended for surface coloring only. Their application must be controlled so that the coatings do not saturate the Spray-Applied Fire Resistive Material (SFRM) and thus influence the bond between the SFRM and the steel substrate. Unless specifically indicated above, these systems have not been investigated for exterior use. The flame spread index of the surface coating shall be less than 200 as determined by the test method in ANSI/UL 723 (ASTM E84 and NFPA 255). Surface Burning Classifications are contained in the Building Materials Directory.

3. Top-Coat Materials

Gypsum plaster, gypsum cement or Types M-II, TG or 400 may be used as a top-coat over Types 300, 300AC, 300ES, 300HS, 300N, 3000, 3000ES, SB, 400AC, 400ES, 400, DC/F, II or HP. If used, the coating is intended as a smooth surface coating only. Their application must be controlled to a maximum 1/4 in. thickness so that the coating does not affect the Spray-Applied Fire Resistive Material (SFRM) and thus influence the bond between the SFRM and the steel substrate. The minimum thickness and density for the SFRM being top-coated shall be as specified in the individual Design.

4. Using Type CB Batts and Blankets and Spray-Applied Fire Resistive Material on the Same Structural Member

One or more faces of a wide flange steel beam or column may be protected with Type CB Batts and Blankets in accordance with Design Nos. [N308](#), [N309](#) or [X314](#) using CAFCLIP fasteners when Types DC/F, II, HP, 300, 300AC, 300ES, 300HS, 300N, 3000, 3000ES, SB, 400AC, 400ES, 400 or M-II Spray-Applied Fire Resistive Material (SFRM) is applied to the remainder of the beam or column, in accordance with the individual Design. The unused portion of the CAFCLIP fastener may be removed. The SFRM shall be oversprayed on the Type CB Batts and Blankets at the edges for the entire width of the Type CB Batts and Blankets. The minimum thickness and density for the SFRM and the minimum thickness of the Type CB Batts and Blankets shall be as specified in the individual Design.

5. Spanning Gaps Between a Wide Flange Steel Beam and a Rated Concrete Block or Masonry Wall

When the wide flange steel beam in a floor-or-roof ceiling assembly is in close proximity and parallel to a rated concrete block or masonry wall, preventing the entire perimeter of the beam from being properly protected with Spray-Applied Fire Resistive Material (SFRM), the following method may be used to maintain the fire resistance rating of the floor-or-roof ceiling assembly. Minimum 3.4