



ISOLATEK TYPE 400

Spray-Applied Fire Resistive Material

ISOLATEK TYPE 400 is a portland cement based Spray-Applied Fire Resistive Material (SFRM). It is a medium density wet mix product, designed to provide fire protection for structural steel in commercial and high rise construction. The durable surface and portland cement based formulation of the product make it well suited for application in areas which may be subjected to higher levels of abuse and elevated humidity levels.

ISOLATEK TYPE 400 offers the best fire resistance performance per unit thickness of any commercial SFRM. This means less material is needed to achieve required fire ratings. With virtually no waste during installation, ISOLATEK TYPE 400 is cost effective, clean and neat in appearance.

CODE COMPLIANCES

ISOLATEK TYPE 400 satisfies the requirements of the following:

- IBC - International Building Code (ICC ESR-1649)
- UBC - Uniform Building Code
- New York City - MEA
- NBC - National Building Code of Canada

MAJOR SPECIFICATIONS

ISOLATEK TYPE 400 complies with the requirements of the following specifications:

- General Services Administration (GSA):
AIA/SC/GSA:07811
- Department of the Navy
NAVFACENGCOM Guide
Specification NFGS 07810,
Sprayed-On Fireproofing
- Veterans Administration
(VA): H-08-1
- U.S. ARMY Corps of
Engineers CEGS-07811

FIRE TEST PERFORMANCE

ISOLATEK TYPE 400 has been extensively tested for fire endurance by Underwriters Laboratories (UL) and Underwriters Laboratories of Canada (ULC) in accordance with ASTM E119 (UL 263, CAN/ULC-S101).

These tests have resulted in ratings of up to 4 hours for:

- Floor Assemblies
- Beams
- Joists
- Columns
- Roof Assemblies

ISOLATEK TYPE 400 has also been tested in accordance with ASTM E84 (UL723,CAN/ULC-S102) and has the following

Surface Burning Characteristics

Flame Spread.....0

Smoke Developed.....0

THERMAL PROPERTIES

ISOLATEK TYPE 400 is also a thermal insulator. This benefit is important in reducing heat loss, particularly when the product is applied to the underside of a roof deck. The R-value added by ISOLATEK TYPE 400 may allow a reduction in roof insulation.

| Product | Conductivity (k)* | Resistance (R/inch) |
|-------------------|--|---------------------|
| ISOLATEK TYPE 400 | 0.494 BTU in/hr ft ² (0.0712 W/mK) | 2.02 |

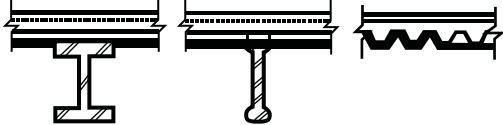
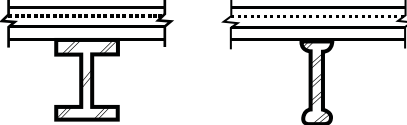
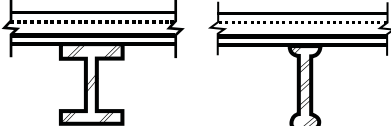
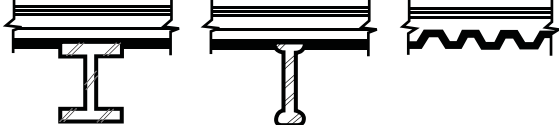
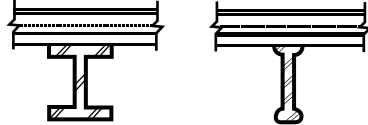
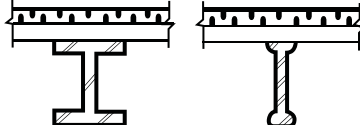
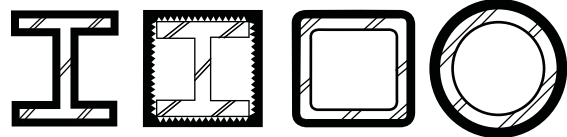
*When tested in accordance with ASTM C518

| Physical Performance | | | |
|------------------------|---------------------|--|---|
| Characteristic | ASTM Method | Standard Performance* | Tested Performance** |
| Density | E605 | 22 pcf (353 kg/m ³) | 25 pcf (400 kg/m ³) |
| Combustibility | E136 | Noncombustible | Noncombustible |
| Cohesion/Adhesion | E736 | 434 psf (20.8 kPa) | 8,556 psf (409.6 kPa) |
| Deflection | E759 | No Cracks or Delaminations | No Cracks or Delaminations |
| Bond Impact | E760 | No Cracks or Delaminations | No Cracks or Delaminations |
| Compressive Strength | E761 | 7,344 psf (351 kPa) | 22,112 psf (1058.7 kPa) |
| Air Erosion Resistance | E859 | Less than 0.025 g/ft ² (0.27 g/m ²) | 0.000 g/ft ² (0.000 g/m ²) |
| Corrosion Resistance | E937, Mil. Std. 810 | Does Not Promote Corrosion of Steel | Does Not Promote Corrosion of Steel |
| Sound Absorption | C423 | | 0.60 NRC 1/2" (13mm) on deck and beam |
| Cone Calorimeter | E1354 | No Flaming or Heat Release | No Flaming or Heat Release |
| Fungal Resistance | G21 | No Growth After 28 Days | Passed |

* Standard performance based on General Services Administration AIA/SC/GSA/07811. Refer to UL design for density requirement. For further information refer to the application manual.

** Values represent independent laboratory tests under controlled conditions.

UL* Fire Resistance Ratings

| system or Component | Rating (HR) | Designs | Design Details |
|---|--|----------------|--|
| Floor Assemblies - Protected Deck | 1, 1 1/2, 2, 3 1, 1 1/2, 2, 3 | D759 G705 |  |
| Floor Assemblies - Unprotected Deck | 1 1/2, 2, 3 | D902 |  |
| Beam or Joist Only - Floors | 1, 1 1/2, 2, 3, 4 1, 1 1/2, 2, 3 | N759 N761 |  |
| Roof Assemblies - Protected Deck | 1, 1 1/2, 2, 3 1, 1 1/2, 2, 3 | P719 P723 |  |
| Roof Assemblies - Unprotected Deck | 1, 1 1/2, 2 1, 1 1/2, 2 | P908 P922 |  |
| Beam or Joist Only - Roofs | 1, 1 1/2, 2, 3, 4 1, 1 1/2, 2, 3, 4 | S721** S729 |  |
| Columns, W6x9 through W14x730 Pipe and Tube Steel | 1, 1 1/2, 2, 3, 4 | X790 |  |

Note: In all cases consult the actual design listing for beam sizes, deck profiles, electrification details, roof insulation types and other construction details.

* UL is accredited by the Standard Council of Canada (SCC) as a Certification and Testing Organization to Canadian Standards and codes.

** Requires material on underside of deck.

For Further Information

LUCO Technical and Sales representatives are always available to lend assistance. Additional Printed material, including Material Safety Data Sheet, and other product literature, are available upon request. For more information about LUCO line of fire protection, Intumescent Coatings, Rigid Boards, thermal/acoustical treatments, or for the name of sales representative in your area, please visit our website



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The Performance data herein reflected our expectations based on test conducted in accordance with recognised standard methods. The sales of these products shall be subject to the terms and Conditions of sale set forth in the Company's invoices. No agent, employee or representative of the Company, or its subsidiary or affiliated companies, is authorized to modify this statement.