



FIRE PROTECTION SYSTEMS

SOUTHWEST FIREPROOFING TYPE 7 HD™

High Density Cementitious Fireproofing

1. PRODUCT NAME

TYPE 7 HD

2. PRODUCT DESCRIPTION

Basic Use: TYPE 7 HD is a spray applied factory blended cementitious fireproofing. TYPE 7 HD is categorized as high density with excellent hardness and durability to help resist accidental physical damage.

Composition and Materials: TYPE 7 HD is a noncombustible blend of high quality Portland cement and vermiculite.

Packaging: In polyethylene bags shrink-wrapped and palletized.

3. TECHNICAL DATA

Physical Properties: Refer to Table 1.

Fire Resistance Ratings: Refer to Table 2.

4. INSTALLATION

Surface Preparation: Surfaces to receive TYPE 7 HD must be free of oil, grease, loose scale or other substances that may impair adhesion. Hangers, clips or other attachments must be in place prior to fireproofing application.

Method: TYPE 7 HD is applied only by authorized applicators. Floor decks and roof decks will require the use of metal lath. Refer to application manuals and technical representatives for further details.

Maintenance: Damage caused by other trades should be patched at the expense of trade causing damage.

5. CODE COMPLIANCE

TYPE 7 HD is listed by Underwriters Laboratories. These fire resistance designs and associated testing fully qualify TYPE 7 HD to the requirements of BOCA, ICBO, SBCCI, UBC, IBC and the National Building Code of Canada.

6. FEATURES

a) Damage Resistant and Permanent: TYPE 7 HD is a higher density, harder and stronger product than general fireproofing. It is ideal for protection of structural steel where the potential for damage from abuse and severe conditions exists.

b) Moisture and Weather Resistant: TYPE 7 HD is Portland cement based which provides the ability to withstand the effects of weather exposure such as wind, rain and high humidity that may cause other fireproofing products to deteriorate.

c) Economical: TYPE 7 HD offers the lowest installed cost per unit area when compared to other products with similar density and/or performance characteristics.

d) Non-Toxic: TYPE 7 HD is comprised of common Portland cement and other inert materials requiring only the addition of water.

e) Versatility: The broad range of fire test designs offers maximum design flexibility to the architect and engineer.

PHYSICAL PROPERTIES - Table 1

| Property | Result |
|--|---|
| Density, ASTM E 605 | 40 pcf (636 kg/m ³) nominal (Displacement Method) |
| Combustibility, ASTM E 136 | Passed, noncombustible |
| Compressive strength, ASTM E 761 | 350 psi (2411 kPa) nominal |
| Cohesion / Adhesion, ASTM E 736 | > 6000 psf (>287 kPa) |
| Air erosion, ASTM E 859 | 0.00 g/ft ² |
| Deflection, ASTM E 759 | Passed, no spalling or delaminating |
| Impact, ASTM E 760 | Passed, no spalling or delaminating |
| Hardness, ASTM D 2240 | 40 |
| Corrosion of Steel, ASTM E 937 | Passed |
| Surface burning characteristics, ASTM E 84 | FSI = 0, SD = 10 |
| Fungi Resistance, ASTM G 21 | No growth |

Note: These results are from laboratory tests of samples prepared and tested in accordance with the test methods indicated. Results of field tests will vary. We do not warrant that identical results will be obtained or repeated.

UL FIRE RATED DESIGNS -TABLE 2

| Construction Type | Rating(s), hours | | | | | Design No. | |
|-----------------------------------|------------------|-----|---|---|-------------|-------------|------|
| | 1 | 1.5 | 2 | 3 | 4 | ULI | ULC |
| Protected Floor, Ceiling | B | B | R | R | - | D703 | - |
| | B | B | B | B | B | D739 | - |
| | B | B | B | B | - | D743 | - |
| | - | U | U | R | - | D753 | - |
| | - | B | R | - | - | - | F817 |
| | - | U | U | R | R | D754 | - |
| | B | - | - | - | - | - | F818 |
| B | B | B | B | B | D788 | - | |
| Unprotected Floor, Ceiling | R | R | R | R | - | D916 | - |
| | - | R | R | R | - | D917 | - |
| | B | B | B | B | B | D949 | - |
| | R | R | R | - | - | - | F906 |
| Concrete Floor or Roof | U | - | R | - | - | J701 | - |
| | - | - | B | B | B | J704 | - |
| | - | - | B | B | B | J705 | - |
| | B | B | B | B | - | J709 | - |
| | B | B | B | B | B | J718 | - |
| | - | - | B | R | R | J919 | - |
| Beam or Joist | B | B | B | B | B | N706 | - |
| | B | U | B | B | B | N708 | - |
| | B | B | B | B | - | N736 | - |
| | B | B | B | - | - | N754 | - |
| | B | B | B | B | B | N791 | - |
| | B | B | B | B | B | S701 | - |
| | B | B | B | - | - | S702 | - |
| | B | B | B | B | - | S715 | - |
| | B | B | B | B | B | S739 | - |
| | B | B | B | B | B | S740 | - |
| Protected Roof, Ceiling | B | B | B | - | - | P701 | R705 |
| | B | B | B | - | - | P711 | - |
| | B | B | B | - | - | P717 | - |
| | B | B | B | - | - | P741 | - |
| Unprotected Roof, Ceiling | B | R | R | - | - | P907 | - |
| | R | R | R | - | - | P921 | - |
| Metal Wall Assembly | B | B | B | B | - | U703 | - |
| Columns | - | - | B | B | B | X527 | X822 |
| | B | B | B | B | B | X771 | Z805 |
| | B | B | B | B | B | X772 | |
| | B | B | B | B | B | Y725 | |

R – Restrained, U – Unrestrained, B – Both
 ¾ hr ratings are also available

All floor and roof decks will require the use of metal lath. Please contact your A/D representative for further information.

For details of fire rated assemblies, refer to ULI' s Fire Resistance Directory, Volume 1.

NOTE: Designs are continuously updated and developed. Contact your A/D Representative for current information.

Type 7HD™ is manufactured under license to Southwest Fireproofing™ Products by

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