

Selection & Specification Data

Generic Type Cementitious inorganic polymer fireproofing formulation.

Description Single powder component mixed with clean, potable water before it is used in application. Recommended uses for the fire protection of structural steel, bulkheads, and upgrading the fire resistance of any existing concrete. Recommended areas of application are pharmaceutical facilities, power plants, penthouses, schools & hospitals, abatement spray and air plenums.

- Features**
- Easily applied by spray or trowel
 - Lightweight – 1/3 the weight of concrete for equal fire protection
 - Most Economical – Offers a 40 lb/ft³ density.
 - Coverage – outstanding coverage at 18.3 board feet.
 - Excellent physical properties – hard, durable
 - Nonflammable – during or after application
 - Asbestos free – complies with EPA and OSHA regulations
 - Chloride free – no special priming required
 - Non-friable – high impact strength
 - Single package – mixed with clean, potable water at the job site
 - UL 1709 Ratings for Hydrocarbon type fires.
 - Investigated for exterior use by Underwriters Laboratories, Inc.
 - Quality Manufactured – under strict Carboline quality standards.
 - UL factory inspection service

Finish If required, may be done by trowel, roller or brush typically within 1 – 2 hours after application of PYROCRETE 40.

Primers PYROCRETE 40 neither promotes nor prevents corrosion. The fireproofing should not be considered as part of the corrosion protection system. For applications where primers are required, use an appropriate alkaline resistant primer. For contour applications where primers are recommended, PYROCRETE 40 must meet minimum U.L. bond strength criteria.

Selection & Specification Data (cont.)

Topcoats Generally not required. In severely corrosive atmospheres, consult Carboline Technical Service for selection of the coating most suitable for the operating environment.

Dry Film Thickness Recommended thickness depends on desired rating and assembly to be fireproofed. See attached design details.

Temperature Resistance Not recommended for use a refractory cement or where operating temperatures exceed 200°F (93°C).

Physical Data (Typical Values)

Color ⁽¹⁾	Non-Uniform	Speckled Gray
Density (Average)	ASTM E 605 ⁽²⁾	40 lbs./ft ³
Durometer Hardness (Shore D)	ASTM D 2240	40
Compressive Strength	ASTM E 761	594 psi
Coefficient of Thermal Expansion		5.8 X10 ⁻⁶ (inch / inch °F)
Combustibility	ASTM E 136	Non-Combustible
Bond Strength	ASTM E 736	1317 psf
Bond Impact	ASTM E 760	Pass
Impact Resistance	ASTM D2794	Indents at 20 foot pounds
Deflection	ASTM E 759	Pass
Average Flexural	ASTM D 790	136 psi
Maximum Strain	ASTM D 790	0.0094 in/in
Flame Spread	ASTM E 84	0
Smoke Development	ASTM E 84	10
Corrosion	ASTM E 937	0.00 gm/mm ²
Insulation "K" Factor	ASTM C177	1.06 (BTU in/hr ft ² °F)
Specific Heat		.36 BTU/LB/°F
Shrinkage		<0.5%
Coverage 50 lb. bag ⁽³⁾		18.3 Bd.Ft.
Shelf Life		Two years
(1) Product color may vary due to variations in color of portland cement.		
(2) Air dry at ambient conditions until constant weight. Do not force dry. Use ASTM E 605 Positive Bead Displacement.		
(3) Material losses during mixing and application will vary and must be taken into consideration when estimating the job requirements.		

Test reports and additional data available upon written request.

Pyrocrete-40

Approvals

Pyrocrete 40 has been tested by Underwriters Laboratories, Inc. and is classified for exterior or interior use.

It is listed under the following designs:

ASTM E119 (UL 263, NFPA 251)

Columns – X760, X761, X762, X763, X784, X785, Y707, Y708

Beams - N737, N738, N739, N740, N771, N772, N773, N774, N775, S717, S719, S731, S732, S733

Floor Ceiling Assembly - D774, D767, D768, D769, D770, D771, D773, D774, D775, D776, D777, D927, D928

Roof Assembly - P927, P928, P734, P735, P736, P737, P738, P739, P926, P929

Walls - U704

Precast Concrete & Steel Joist – G706, G707, G708, J713, J714, J715, J716

UL 1709

Rapid temperature rise that simulates a hydrocarbon fire exposure.

Columns - XR705, XR706, XR707

Packaging, Handling & Storage

Shipping Weight (Approximate)	Bag weight is 50 lbs. (22.7 kg) Truckload = 880 bags: 40 palletized bags and the pallet is plastic wrapped.
Storage	Material should be kept dry, covered, and off of the ground.
Storage Temperature & Humidity	-20°F to 150°F (-29°C to 66°C) 0 to 90% relative humidity
Shelf Life	Min. 24 months

*Shelf Life: (actual stated shelf life) when kept at recommended storage conditions and in original unopened containers.

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