

Pyrocrete[®] series

Proven protection under fire



History of performance excellence

A track record spanning over 45 years and hundreds of millions of square feet of structural steel protected worldwide.

Since the late 1970s, Pyrocrete has been the industry leader in cementitious passive fire protection. Pyrocrete is the global benchmark for high-performance cementitious fireproofing in the refining and petrochemical industries and continues to be the most widely specified and highly regarded cementitious fireproofing product line in the world. The comprehensive Pyrocrete series provides trusted solutions that meet or exceed any specified density and performance criteria.

Pyrocrete 341

A next-generation Portland cement-based hybrid material with high build, superior durability, early hardness development, hydrophobic properties and unsurpassed physical properties. Standard-setting material provides hydrocarbon jet fire, pool fire, and cryogenic protection in a single coat. Minimum average 52 pcf (833 kg/m³) density.

Pyrocrete 40

Minimum average 40 pcf (640 kg/m³) high-density cementitious fireproofing with excellent film build and outstanding coverage in industrial and commercial spaces.

Pyrocrete 241 HY

Minimum average 50 pcf (800 kg/m³) high-density cementitious fireproofing with high physical performance and high yield.

Pyrocrete 241

Minimum average 55 pcf (881 kg/m³) high-density cementitious fireproofing with a 45 year history of exceptional durability and performance.

Pyrocrete features and benefits

PRODUCT FEATURE	PERFORMANCE BENEFIT
High durability	Suitable for both offsite and onsite application.
High impact & compressive strength	Resists damage during transportation, construction, and throughout service life.
High bond strength	Prevents failures from disbondment and cracking which lowers repair & maintenance costs.
Low certified thicknesses	Lower installation & material costs.
1/3 the weight of concrete	Weight savings, reducing overall construction, transportation & installation costs.
Single product performance benefit	Hydrocarbon pool fire, jet fire, and cryogenic performance all in one.

PIPE RACK SUPPORT PROTECTED WITH PYROCRETE WITHSTANDS HYDROCARBON FIRE.



PYROCRETE APPLIED OFFSITE AND TRANSPORTED TO JOBSITE.



Rigorously tested, certified, and proven

Pyrocrete is proven to perform in the harshest environmental conditions, the extreme heat of hydrocarbon fire, and even in cryogenic exposure.

The Pyrocrete series has been tested and certified for a variety of exposures and has successful performance in actual hydrocarbon fires in refining and petrochemical facilities around the world.

Certifications & listings:

Carboline's Pyrocrete products have been certified to the following industry-accepted fire test standards:

- > UL 1709 Rapid Rise Hydrocarbon Fire
- > BS476-20 Appendix D Hydrocarbon Pool Fire
- > NFPA 290 Torch & Hose Stream
- > FM Global (Factory Mutual)

Performance testing

In addition to the fire and environmental test protocols, our products have also been successfully tested to the following independent third-party test programs to simulate real world exposures:

- > Explosion resistance (up to 4 bar overpressure)
- > Hose Stream Resistance (NFPA 58 Annex H & NFPA 290)
- > Cryogenic immersion / splash & spill resistance
- > ISO 20088-1 Cryogenic Liquid Phase
- > Cryogenic spill followed by jet fire

Environmental testing & certification

UL 1709 Environmental Program

All Pyrocrete products are certified to the UL 2431 Durability of Fire Resistant Coatings and Materials, Category I-A. This standard subjects materials to various conditions including air erosion, wet/freeze/dry cycling, high humidity, impact resistance, industrial atmosphere, salt spray, temperature stability, UV light, and vibration. Materials are fire tested post cyclic exposure and conditioning to ensure they retain fire performance.



Product comparison

	Pyrocrete 341	Pyrocrete 241	Pyrocrete 241 HY	Pyrocrete 40
ASTM E605 density	52-55 pcf (833-831 kg/m ³)	55 pcf (881 kg/m ³)	50 pcf (800 kg/m ³)	40 pcf (640 kg/m ³)
Hydrocarbon fire protection	UL 1709 - up to 4 hours	UL 1709 and BS 476 - up to 4 hours	UL 1709 - up to 4 hours	UL 1709 and BS 476 - up to 4 hours
ISO 22899 jet fire protection	2 hours	2 hours	2 hours	2 hours
ISO 20088-1 cryogenic protection	Up to 90 minutes	Up to 60 minutes*	Up to 60 minutes*	Up to 60 minutes*
Explosion resistance	>4 bar	3 bar	3 bar	3 bar
Hose stream endurance	Pass	Pass	Pass	Pass

*Testing based on South Hook LNG immersion/splash and spill criteria.

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SPAIN - BARCELONA

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USA - DAYTON, NV

USA - GREEN BAY, WI

USA - LAKE CHARLES, LA

USA - LOUISA, VA

USA - STREETSBORO, OH (DUDICK)

VIETNAM - HO CHI MINH



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