

PYROCRETE 241

Main characteristics (technical specifications)

The protected structure shows a thermal step at about 100°C during the 30-80 min test.
Non-uniform grey coloured

Can be washed: Low/medium/high pressure

Can be painted:

Information on the composition

Product based on inorganic cement
Powder mono-component to be mixed with water before application

Fire Test reports (cross the relevant boxes)

ISO (1050°C 2h 1160°C 4h) <input type="checkbox"/>	HC (1100°C, ref. EC1.1.2) <input type="checkbox"/>	HCM (1300°C, HC*1300/1100) <input type="checkbox"/>
RABT/ZTV (Germany) (1200°C) <input type="checkbox"/>	RWS (1350°C) <input type="checkbox"/>	Others : ASTM E 119 1010°C at 2h, 1093°C at 4h <input type="checkbox"/>

Characteristics of the tested samples, report number and possible comments:

- Tests by "Underwriters Laboratories US" under :
 - ASTM E119 fire, in 22 mm, for CF 4h floor resistance
 - UL 1709 fire in 33 mm, for steel wall resistance CF 2h
- FIRTO GB tests in 33 mm under comparable hydrocarbide fire (1983) i.e. 1150 °C 2 hours, on metal support
- Tests by "Det Norske Veritas, Norvège",
- CSTB

Application procedures **Board** **Mortar**

Preparation by concrete mixer (proportions: 19 l water for a 22 kg bag)
Applied by spraying or with trowel; minimal thickness 7 mm wet
Surface preparation required
Primary layer on steel, galva., wood or concrete
Projected on unfolded steel reinforcement (1-2 kg/m²) welded for steel bars protection
Plan an expansion joint every 3 m (trowel indent)
Possible smoothing
Drying time 10 days at 21°C for 25 mm

Present application field

Recommended to protect steel structures, walls, LPG tanks, concrete for:
Oil refineries/petrochemistry, chemistry, offshore platforms, nuclear industry...
Not recommended for use on non-ferrous metals (aluminium)

Possible use in tunnels	Civil engineering works references
Physical and thermal data	
<p><u>Reaction to fire</u> (French/European classification):</p> <p><u>Main thermal data: (at 20°C and possibly variation with temperature)</u></p> <ul style="list-style-type: none"> • Thermal conductivity λ (W.m⁻¹.K⁻¹) = • 2 out of the 4 following values ○ Specific heat c (J. kg⁻¹.K⁻¹) = ○ Density ρ (kg/m³) = 800/880 ○ Volumic specific heat C (J.m⁻³.K⁻¹) = $\rho c =$ ○ Diffusivity a (en m².s⁻¹) = $\lambda/\rho c =$ • Resulting emissivity (adimensionnal) : $\epsilon_{res} =$ 	<p><u>Other thermal data :</u> Reflection coefficient (adimensionnal) : or Absorption coefficient (adimensionnal) :</p> <p><u>Main mechanical data:</u> E modulus (Mpa) = Compressive strength (Mpa) = 3,8 Bending strength (Mpa) = 3</p> <p><u>Complementary data:</u> Porosity : Shore hardness : Shore D /44 à 65</p>
Durability	
Shrinkage: 55%	
Product and company identification/Commercial name/ Applicators	
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Documentation/References	
Pyrocrète leaflet dated 1996 + English memo dated 1998	

