

FENDOLITE M II

Main characteristics (technical specifications)

Pre-mixed insulating product, sprayed, resistant, low density, suitable for quick variations of thermal shocks, suitable for any type of internal or external structure.
Broken white coloured, can be float-finished

Can be washed: Low/medium/high pressure Can be painted:

Information on the composition

Product consisting of Portland cement and vermiculite

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 : <input type="checkbox"/>

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

- Fire testing by TNO (98-CVB-R0574) under RWS regime in February and March 1998 on 15 cm-thick concrete plates reinforced with wire meshes protected by 21 mm of Fendolite M II applied in 2 coats with steel wire meshes et dowels. After 2 hours the interface temperature is 414°C.
- A complementary test under RWS regime was conducted in August 98 on a 15 cm-thick reinforced concrete plate protected by 27 and 33 mm of Fendolite M II.
- A test under HCM regime was conducted at TNO in October 2001 (2001-CVB-R04521) on 20 cm-thick concrete plates protected by 23 et 38 mm of Fendolite M II without wire mesh (cold face resp. 62.6°C and 44.1°C)

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

After support cleaning, the product is mixed with potable water and sprayed in one or several layers with CAFCO agreed machine with protective wiring, then smoothing and float-finish.
The maximal layer thickness is 8 mm or 15 mm with steel wire mesh.
On steel structures treated with an alkyde-based primary coat, preliminary application of an alkyde-resistant product CAFCO PSK 101 or similar.

Present application field

Can be applied on RC segments
Can be applied on steel structure

Resources, territories and habitats
 Energy and climate Sustainable development
 Risk prevention Infrastructures, transports and sea

**Here
for
the future**

Possible use in tunnels	Civil engineering works references
Tunnel sidewalls, vaults and ceilings	Oresund tunnel (DN), Westerschelde tunnel (NL), Limfjord tunnel (DN), prevesa Aktion (GR), Perth (AUS), Boston harbour (USA), Hong Kong Mass transit (CHI), Botlek pipe (NL), Vienna City Tunnel (A), Jingyazhong Tunnel (China), Monserrat Airport tunnel (Montserrat), Groenhart tunnel (NL)
Physical and thermal data	
<p><u>Reaction to fire</u> (French/European classification): M0</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) = 0.19 • 2 out of the 4 following values ○ Specific heat c (J. kg⁻¹.K⁻¹) = 970 ○ Density ρ (kg/m³) = 775±15% ○ Volumic specific heat C (J.m⁻³.K⁻¹) = ρc= ○ Diffusivity a (en m².s⁻¹) = $\lambda/\rho c$ = • Resulting emissivity (adimensionnall) : ϵ_{res} = 	<p><u>Other thermal data :</u> Reflection coefficient (adimensionnall) : or Absorption coefficient (adimensionnall) : 0.35</p> <p><u>Main mechanical data:</u> E modulus (Mpa) = 566 Compressive strength (Mpa) = 3.1</p> <p><u>Complementary data:</u> Porosity : Shore hardness: 40 Shore D Adherence/coherence: 168 kPa</p>
Durability	
PH : 12	
Product and company identification/Commercial name/ Applicators	
<p>- M.MENGUY CAFCO international 3 rue de l'industrie L 3895 FOETZ Grand Duché du Luxembourg tel : +352 55 17 17 fax :+ 352 55 27 99</p> <p>- M.NELSON CAFCO international 3 rue de l'industrie L 3895 FOETZ Grand Duché du Luxembourg tel : +352 55 17 20 fax : +352 55 27 99</p>	
Documentation/References	
<p>CAFCO international CAFCO international/tunnels/Blast Overpressure/CD CAFCO http://www.cafcointl.com/</p>	

