Main characteristics (technical specifications)

Mineral coating to protect the structures against fire.
Creation of a thermal step at the protection/support interface, about 100 °C from 60 to 120 min.

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

Information on the composition

Mineral coating consisting in hydraulic micro porous cement and chalk binders added with light mineral fillers.

Fire Test reports (cross the relevant boxes)

<table>
<thead>
<tr>
<th>Test Case</th>
<th>Temperature</th>
<th>Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>ISO (1050°C 2h 1160°C 4h)</td>
<td>☑</td>
<td>☑</td>
</tr>
<tr>
<td>HC (1100°C, ref. EC1.1.2)</td>
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<tr>
<td>HCM (1300°C, HC*1300/1100)</td>
<td>☑</td>
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<tr>
<td>RABT/ZTV (Germany) (1200°C)</td>
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<tr>
<td>RWS (1350°C)</td>
<td>☑</td>
<td>☑</td>
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<tr>
<td>Others:</td>
<td>☑</td>
<td>☑</td>
</tr>
</tbody>
</table>

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

- CSTB: concrete structure SF 6 hours with 40 mm protection under fire ISO 834 (testing report n°43349 dated 1997)
- CSTB: report on concrete wall and sprayed protection 40 mm IR 4020 under fire ISO (March 1998) with calculation of interface temperatures over 6 hours (with 25 cm and 15 cm walls)
- CSTB HCM fire in 2002 (report n°RS02-134): 50mm protection IR 4020-TUN on a 15cm concrete slab, loaded to 14kN.m/ml according to EN 13381-3. The test was performed after complete drying according to weight loss measurements. Protection was deteriorated but remained stable.

Application procedures

- Board ☑ Mortar ☑

Thickness 10 to 50mm depending on requirements
Spraying by 20 mm thick lengths
Application on support: 2 steel wire meshes for a total protection thickness of 40 mm
Possibility to apply protection via watertightness (IR 4010 in 3 mn ). This seems to restrict cracking (CSTB test)
Possibility to apply a primary layer « IR 4010 » to increase bonding.
Cleansing and dust removing of the support is necessary.

Present application field

Basins, retention walls, reinforced and/or pre-stressed concrete structures and walls, conventional masonry, steel carpentry,....
### Physical and thermal data

**Reaction to fire:**
(French/European classification):

**Main thermal data:** (at 20°C and possibly variation with temperature)

- Thermal conductivity \( \lambda \) (W.m\(^{-1}\).K\(^{-1}\)) = 0.26
- 2 out of the 4 following values
  - Specific heat \( c \) (J.kg\(^{-1}\).K\(^{-1}\)) = 880
  - Density \( \rho \) (kg/m\(^3\)) = 850
  - Volumic specific heat \( C \) (J.m\(^{-3}\).K\(^{-1}\)) = \( \rho c \)
  - Diffusivity \( a \) (en m\(^2\).s\(^{-1}\)) = \( \lambda/\rho c \)
- Resulting emissivity (adimensionnal): \( \varepsilon_{res} = \)

**Other thermal data:**

- Reflection coefficient (adimensionnal):
- Absorption coefficient (adimensionnal):

**Main mechanical data:**

- E modulus (Mpa) =
- Compressive strength (Mpa) =

**Complementary data:**

- Porosity:
- Shore hardness:
- Bonding: 4.17MPa
- Mass content of water 10%

### Durability

### Product and company identification/Commercial name/ Applicators

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### Documentation/References

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