

## Data Sheet

# Perlifoc®

## Fire-retardant mortar for passive fire protection



Gypsum based fire resistant mortar with thermal insulation properties for passive fire protection in structural elements and compartmentation.

Perlifoc is composed of expanded lightweight aggregates (perlite and vermiculite), hydraulic binders, setting retarders and additives to improve mechanical application. It does not contain asbestos.

### Field of application

Perlifoc mortar is used for coating the structural elements of buildings for passive protection in case of fire, in order to maintain stability and the resistant capacity of these elements until the fire is extinguished and/or the building is evacuated.

### Application

Perlifoc mortar is applied wet with a mixer and compressor type mortar spraying machine. It can be applied manually in small areas of application or for repairing damage.

**Surface preparation.** The surface must be dry and free of grease, dust and dirt. When working with absorbent surfaces it is recommended to spray the surface with water. When the surface does not provide sufficient guarantee of adherence, you must place a mesh or bonding bridge before spraying.

**Mesh.** No mesh required except when using the mortar on wood, pipes and on concrete (in some cases). It is also recommended for use in flanges of girders 500 mm or more in width, in pillars where only one side is sprayed, and square or rectangular metal profiles and pillars subject to high deformation.

**Spraying.** Mix the product with water in the spraying machine. Spray the previously cleaned surface until the exact thickness is obtained (maximum thickness per layer 30 mm).

**Finish.** Rough-finished mortar. If necessary, it can be smoothed. The finish can be painted.

### Technical specifications

Base	Gypsum
Colour	White
Apparent density	600-760 Kg/m <sup>3</sup>
Hardened mortar density	850-900 Kg/m <sup>3</sup>
pH value	12
Adhesion	≥ 0.10* N/mm <sup>2</sup>
*Depending on the substrate	
Compression strength	≥ 2 N/mm <sup>2</sup>
Bend resistance (after 28 days)	≥ 1 N/mm <sup>2</sup>
Theoretical performance	8.5 Kg/m <sup>2</sup> /cm
Application temperature	Between 3 and 30 °C
Reaction to fire	A1
Asbestos	Asbestos free
Thermal conductivity	0.122 W/mK
Sound absorption ( $\alpha_w$ )	0.55 (H). Class D Thickness 25 mm
Presentation	20 kg bags. 56 bags / pallet (1,120 Kg)

### Storage and security

The Perlifoc material is ready for use until one year after delivery. It should be kept closed and dry.



## Approvals and Certificates

PERLIFOC is **CE Marked** by the European Technical Assessment (**ETA 12/0005** issued by the ITeC (Institute of Construction Technology of Catalonia).



Solutions included in ETA 12/0005:

- Metallic structure according to EN 13381-4  
Classified system up to R 240
- Concrete structure according to EN 13381-3  
Classified system up to REI 240
- Mixed structure according to EN 13381-5  
Classified system up to REI 240
- Wooden frame according to EN 1365-2  
Classified system up to REI 180
- Ventilation ducts\* according to EN 1366-1  
Classified system up to EI 120

\* Rectangular Ventilation duct in horizontal position with exterior fire

Also PERLIFOC mortar has been subjected to a variety of tests of harmonised European standards to determine its fire resistance in different systems (not included in ETA 12/0005).

- Wooden structure according to EN 1363-1  
Classified system up to 120 minutes
- Ventilation ducts according to EN 1366-1  
Classified system up to EI 180
- Concrete block wall according to EN 1364-1  
Classified system up to EI 240
- Perlifoc partition wall according to EN 1364-1  
EI 120 classified system
- Firewalls according to EN 1363-1 and "Fire resistance of intersection/party/cover barriers test" protocol. Classified system up to EI 120.

Acoustic test

- Measurement of sound absorption according to UNE-EN ISO 354

Thermal conductivity test

- Thermal conductivity according to UNE-EN 12667

**ETA 12/0005**



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The information in this data sheet is based on our knowledge and experience to date and is given for information only. We are not responsible for anomalies caused by misuse of the product.