

SÉLECTION & CARACTÉRISTIQUES

Type générique	Gypsum based fire resistant mortar with thermal insulation properties for passive fire protection.
Description	Fireproof mortar for the passive fire protection of steel, concrete, composite concrete-steel sheet slab structural elements, fire compartmentation and fire stop partitions. Fire resistance of up to 4 hours depending on the construction system.
Caractéristiques	<ul style="list-style-type: none"> • Formulation with light high-performance fillers. • Non-combustible. • Low thermal conductivity compared to gypsum-based mortars on the market. • Asbestos free – Complies with regulations 2003/18/EC and RD 396/2006. • Good adhesion on different substrates. • Light and low abrasion with the use of spraying equipment. Saving on consumables. • Low protection thicknesses. Saving on transport and labour. • Wide range of fire solutions.
Couleur	Antique white
Finition	Texturé Can be smoothed
Primaire	PERLIFOC HP can be applied on bare steel and on primed steel, and it is compatible with different primer families as stated on its CE marking. For application on other substrates such as galvanised steel, concrete and masonry, no prior priming or bonding bridge is required. Contact the Perlita y Vermiculita SLU technical service for further information. PERLIFOC HP does not promote or prevent corrosion.
Epaisseur d'application	30 mm maximum thickness per coat
Rendement théorique	4.1 ± 15% Kg/m ² /cm (CONTINUOUS machine) ¹ ¹ Average value obtained under laboratory conditions.
Limites	It is not designed for exteriors beyond the normal construction phases and timescales. It must not be exposed to the rain or water leakage. It is not recommended as a refractory mortar or where normal operating temperatures exceed 90°C.
Finitions	Generally not necessary. In highly corrosive atmospheres, consult the Perlita y Vermiculita, SLU Technical Service for the selection of the most appropriate coating for the work environment.

SUPPORTS & PRÉPARATION DE SURFACE

Général	Before application, all the substrates must be clean and free of loose particles, dirt, oil, grease, condensation or any other substance that may affect the adhesion. Contact the Perlita y Vermiculita SLU technical service for further information.
Acier Galvanisé	PERLIFOC HP can be directly applied to galvanised steel without the need for priming or an adhesion promoter. Ensure that the substrate is clean, free of loose particles, dirt, grease, condensation or salts that could affect the adhesion. Contact the Perlita y Vermiculita SLU technical service for further information.

SUPPORTS & PRÉPARATION DE SURFACE

Béton | PERLIFOC HP can be directly applied to concrete without the need for priming or an adhesion promoter. Ensure that the substrate is clean, free of loose particles, decorative paints, dirt, grease or condensation that could affect the adhesion. If there are doubts about the condition of the substrate or it has an old coating, the use of a metal mesh prior to the application of the mortar is recommended. Contact the Perlita y Vermiculita SLU technical service for further information.

Painted/Primed Structural Steel | If the steel structure is not primed, it must be cleaned using an abrasive material to an Sa 2 ½ grade of cleanliness, in accordance with ISO 8501 or equivalent. If it is primed, this must be clean, free of loose particles, dirt, grease or condensation that could affect the adhesion. Furthermore, it must be ensured that the existing primer is compatible with the PERLIFOC HP Eco + mortar, in accordance with the CE marking. Mesh is not required in any case, although its use is recommended on beam flanges wider than 500 mm, on columns with only one sprayed face and profiles subject to high deformations. Contact the Perlita y Vermiculita SLU technical service for further information.

DONNÉES DE PERFORMANCE

Toutes les données des tests sont obtenues en conditions de laboratoire. Les résultats sur site peuvent varier.

Méthode d'essai	Résultats
Adhesion	=0.1 MPa (In accordance with EGOLF SM/5)
Apparent Density	350 ± 15% Kg/m ³
Asbestos	Does not contain asbestos
Flexural Strength	= 0.2 MPa
Hardened Density	=480 ± Kg/m ³ (BATCH-MIX machine) ¹ 550 ± 15% Kg/m ³ (CONTINUOUS machine) ²
Reaction to Fire	A1 (In accordance with EN 13501-1)
Resistance to Compression	= 0.2 MPa
Sound Absorption	aw=0.2 (In accordance with UNE-EN-ISO 354 and 20 mm thickness) NRC=0.2 (In accordance with ASTM C423 and 20 mm thickness)
Thermal Conductivity	0.087 W/mK
Yield	3.5 ± 15% Kg/m ² /cm (BATCH-MIX machine) ¹ 4,1 ± 15% Kg/m ² /cm (CONTINUOUS machine) ²

¹ Average value obtained under laboratory conditions, with a mixing speed of 60 rpm for 90 seconds. If any of these parameters are changed, both the final density and the performance could vary. Lower density at higher speed, and higher density with a shorter mixing time.

² Average value obtained under laboratory conditions.

MÉLANGE & DILUTION

Mixer | CONTINUOUS.
Contact the Perlita y Vermiculita SLU technical service for recommendations. Densities may vary when using this type of mixing equipment.

MÉLANGE & DILUTION

Mélange	Mezcle siempre con agua potable limpia. El mezclador debe mantenerse limpio y libre de cualquier material previamente mezclado que pueda causar fraguado prematuro del producto. Se recomienda ajustar el suministro de agua de alimentación para caudales que oscilen entre 550 y 650 l/hora en máquinas continuas (lo que corresponde aproximadamente al rango de 15-17 litros de agua por cada saco de producto. La regulación del caudal podría ser diferente a la indicada, dependiendo del sustrato sobre el que se aplique, las condiciones meteorológicas, la altura y distancia al sustrato y sobre todo de la experiencia y pericia del aplicador.
Densité	To obtain information and recommendations on how to obtain adequate density and performance, contact the sales or technical Department of Perlita y Vermiculita SLU.
Working Time	1 hour at 20°C, the higher the temperature the shorter the usage time. These times are for guidance and can vary depending on the ambient humidity and air currents. The useful life of the material ends when it hardens and becomes unusable

EQUIPEMENT D'APPLICATION

Ci-dessous informations générales de l'équipement à utiliser. Les conditions sur site peuvent demander la modification de ces caractéristiques pour l'obtention du résultat souhaité.

Pompe	This material may be pumped with a wide range of piston, rotor, stator and compressor pumps designed for pumping cement and plaster materials, including: PFT – model # ZP 3 L Multimix (Batch-mix) Putzmeister – model # S5EV (Batch-mix) Wall Goe – model # JP70-L. (Batch-mix) Putzmeister – model # MP25 (Continuous) PFT – model # G4 Smart (Continuous) Essick – model # FM9/FM5E (Continuous) Hy-Flex – model # HZ-30E (Continuous)
Ball Valves	Ball valves must be fitted on at least one end of the spray hose to facilitate cleaning.
Hose Length	Use a flexible spray hose of between 5 and 10 m in length and at least 25 mm inner diameter. Working pressure at least 30 bar.
Buses/Pistolet	From 10 to 16 mm depending on the desired finish.
Compresseur	The pump compressor must be capable of maintaining a minimum of 2 bar (30 psi) and from 250 to 300 l/min at the nozzle.
Air Line	Use a line with an inner diameter of 16 mm. Hose with a minimum burst pressure of 7 bar (100 psi).
Spray Lance	Minimum length of 600 mm and minimum inner diameter of 25 mm. With material shut-off ball valve and air shut-off valve.

PROCÉDURES D'APPLICATION

Général	Thicknesses of 30 mm or less can be applied in one pass. When additional coats are required to reach the specified thickness, it is recommended to apply the subsequent coats once the previous coat has started to set. If the previous coat has set and is dry, wet the surface with water before applying additional coats. Contact the Perlita y Vermiculita SLU technical service if further information is required.
Finition	Normally the finish is a sprayed texture.

CONDITIONS D'APPLICATION

Condition	Matériau	Surface	Ambiante	Humidité
Minimum	5°C (41°F)	5°C (41°F)	5°C (41°F)	0%
Maximum	38°C (100°F)	52°C (126°F)	43°C (109°F)	90%

The air and ambient temperatures must be maintained 24 hours before, during and after the application. Gypsum-based mortars are sensitive to water and therefore must be adequately protected. For additional recommendations, contact the Perlita y Vermiculita, S.L.U. technical department.

TEMPS DE SÉCHAGE

Temp. de surface	Sec pour être surcouché
25°C (77°F)	2 Heures

The new coat application times are for guidance and could vary depending on the ambient conditions and air currents. In enclosed areas with little ventilation (basements, confined spaces, etc.), for the mortar to dry properly, it is recommended that the RH does not exceed 60% and there is adequate ventilation, which means at least 4 complete changes of air per hour until the material is dry (or for at least 2 weeks after the end of the application).

NETTOYAGE & SÉCURITÉ

Nettoyage	The case, mixer and the hoses should be cleaned with drinking water. Pass sponges or plenty of water through the hoses to remove any material residue that remains in them. Excess wet sprayed mortar should be cleaned with clean drinking water. Dry sprayed mortar may require scraping off to remove it.
Sécurité	Follow all the safety precautions described in the safety data sheet for the mortar. The use of personal protective equipment is recommended, including overalls, gloves and eye protection.
Overspray	Adjacent surfaces should be protected against damage and splashing. Sprayed fireproof materials can be difficult to remove from surfaces and can damage architectural finishes.
Ventilation	In enclosed areas, ventilation must be no less than 4 complete air exchanges per hour until the material is dry.

TEST / CERTIFICATION / RÉFÉRENCIEMENT

EN Standards	<p><i>Resistencia al Fuego según normas EN realizados laboratorios acreditados:</i></p> <p>Protección a estructuras metálicas (EN 13381-4) Vigas y pilares abiertos y perfiles tubulares hasta R240</p> <p>Protección a estructuras de hormigón (EN 13381-3) Vigas, pilares, losas macizas, muros y forjados hasta REI 240</p> <p>Protección forjados mixtos de chapa colaborante-hormigón (EN 13381-5) Protección de forjados mixtos hasta REI 180</p> <p>División no portante (EN 1364-1) Pared de sectorización vertical con clasificación EI 120</p> <p>Franja cortafuegos (Según protocolo del Ministerio de Industria) Sistema anclado a correas EI 180</p> <p><i>Reacción al Fuego según norma EN realizados laboratorio acreditado:</i></p> <p>Reacción al fuego (Clasificado según EN 13501-1) Clasificación A1</p>
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CONDITIONNEMENT, MANUTENTION & STOCKAGE

Durée de vie | 12 months

Poids (Approximatif) | 17 kg/bag

Stockage | Store indoors and in dry environments between 0°C and 50°C.
Material must be kept dry or clumping of material may occur.

Conditionnement | 42 bags/pallet

GARANTIE

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