



tecwool mortars

passive fire protection
thermal insulation

Mercor SA is the largest manufacturer and supplier of comprehensive passive fire protection systems in Poland. Together with its subsidiaries (Tecresa Protección Pasiva in Spain, Hasil a.s. in the Czech Republic, Hasil s.r.o. in Slovakia, Mercor- Proof LLC in Russia, Mercor Ukraina Sp. z o.o. in Ukraine, Mercor Fire Protection Systems s.r.l. in Romania, and Bem Sp. z o.o. in Poland), represents a capital group being one of the largest sector entities in Europe.

At present, products labelled as Mercor, like fire protection systems for building structures and tunnels, fire ventilation systems, fire doors and partitions as well as natural smoke and heat exhaust systems, set the standard for many domestic and foreign projects.

The Mercor Group continually enhances its product range, offering its customers the most innovative solutions available on the market. The products are certified according to a wide range of standards and tested in accredited laboratories. The brochure we have made has been fashioned to present all interested parties with the **Tecwool mortars**. All of the mortars manufactured by the Mercor Group are backed by several tests performed in certified laboratories. Moreover, Tecwool F bears the CE Mark which requires the strictest quality controls in order to offer its customers fully warranted product. Already the Tecwool brand name is achieving a high level of awareness and a reputation for quality, value, and performance on a global scale.

The range of the Tecwool mortars covers:

- ▶ **TECWOOL F** – a mortar specially developed for passive protection against cellulosic fire.
- ▶ **TECWOOL T** – a mortar specially developed for thermal insulation.
- ▶ **TECWOOL 825** – a mortar specially developed for passive protection against hydrocarbon fire e.g. in industrial plants and tunnels.



TECWOOL F MORTAR

KEY FEATURES

- ▶ high durability
- ▶ minimal material waste
- ▶ resistance to cracking
- ▶ no corrosion effect
- ▶ long pumping range of spraying material
- ▶ variable finishes (raw, float, painted)
- ▶ easy cleaning with water
- ▶ non toxic, asbestos and glass silica free

DESCRIPTION

- ▶ **Tecwool F** is a spray mortar that consist of rock wool, cement and additives, specifically engineered for fire protection of all types of building structures and substrates.
- ▶ **Tecwool F** is applied by pneumatic spraying machines. Tecwool F mortar is mixed with spray water at the nozzle head.



TECHNICAL CHARACTERISTICS AND SPECIFICATIONS

| | |
|---------------------------------------|---------------------------------|
| Composition | cement, rock wool and additives |
| Fire reaction | non-combustible /euroclass A1 |
| Bulk mortar density | 250 Kg/m ³ ± 10% |
| Cured mortar apparent density | 328 Kg/m ³ ± 10% |
| Sprayed fresh mortar apparent density | 464 Kg/m ³ ± 10% |
| Thermal conductivity | 0.061 W/mk |
| Alkalinity (pH value) | 12.4 |
| Bulk product, dried at 105°C | 0.68% H ₂ O |
| Steam permeability | 2.1 (μ) |
| Resistance to fungi | immune |
| Protection against steel corrosion | yes |
| Flexural strength | 0.15 Mpa |
| Compressive strength | 0.19 Mpa |
| Wind erosion resistance | 15 m/s β=90° and β=15° |
| Toxic/Pathogenic | no |
| Free crystalline silica asbestos | no |
| Weighted sound absorption ratio | ∞ w=0.8 (H) |
| Acoustic absorption class | B |
| Adherence | 0.011 N/m ² failure |
| Packaging | 25 kg sacks |

CERTIFICATES

Tecwool F mortars have been tested in the following laboratories:

- ▶ ITB (Poland)
- ▶ AIDICO (Spain)
- ▶ APPLUS (Spain)
- ▶ CIDEMCO (Spain)
- ▶ AFITI-LICOF (Spain)
- ▶ WARRINGTON (Belgium)
- ▶ FIRES (Slovakia)
- ▶ TST (Spain)

The range of Tecwool F solutions have been tested in laboratories certified by ENAC under UNE-EN normative and ISO curve heating. Tecwool F mortar bears the CE Mark and has acquired European Technical Approval.



FINISHES

Tecwool F can provide different finishes: raw, float, painted, etc., according to different aesthetic requirements. Once the spraying is completed and in order to obtain a smooth finish, a roller could be used and pressed slightly over the wet mortar until the desired finish is obtained. It is possible to paint the mortar with elastic acrylic coatings to form a steam barrier. Before painting, the mortar should be completely dry (28 days).

HEALTH AND SAFETY

Tecwool F is manufactured with inorganic components such as rock wool, classified according to European Directive 67/548/EEC as Xi; R-38 (health risk-free).

Likewise, it is neither toxic nor pathogenic; it does not contain free asbestos or crystalline silica; and it is not affected by fungi growth.



APPLICATION SUBSTRATE

- ▶ Wood
- ▶ Galvanised or pre-lacquered metal sheet
- ▶ Synthetic plastic
- ▶ Plaster surfaces
- ▶ Bricks or porous supports
- ▶ Steel
- ▶ Concrete

TECWOOL 825 MORTAR

KEY FEATURES

- ▶ high durability
- ▶ minimal material waste
- ▶ resistance to cracking
- ▶ no corrosion effect
- ▶ long pumping range of spraying material
- ▶ variable finishes (raw, float, painted)
- ▶ easy cleaning with water
- ▶ non toxic, asbestos and glass silica free

DESCRIPTION

- ▶ **Tecwool 825** is a mortar made of rock wool, cement and additives, specifically designed for fire protection in industrial facilities and tunnels. It looks like a monolithic block, highly resistant to erosion.
- ▶ **Tecwool 825** is applied by pneumatic spraying machines. Tecwool 825 mortar is mixed with spray water at the nozzle head.

CERTIFICATES

Tecwool 825 mortars have been tested in the following laboratories:

- ▶ ITB (Poland)
- ▶ EFECTIS (the Netherlands)
- ▶ WARRINGTON (Belgium)
- ▶ FIRES (Slovakia)

The range of Tecwool 825 solutions have been tested in laboratories certified by ENAC under UNE-EN normative and Hydrocarbons Modified Curve (HMC), RWS Curve or American UL Curve.



TECHNICAL CHARACTERISTICS AND SPECIFICATIONS

| | |
|-----------------------------|---------------------------------|
| Composition | cement, rock wool and additives |
| Fire reaction | A1 |
| Bulk mortar density | 385 Kg/m ³ ± 10% |
| Dry density (after 28 days) | 843 Kg/m ³ ± 10% |
| Spraying density (wet) | 1070 Kg/m ³ ± 10% |
| Alkalinity (pH value) | 12.5 |
| Resistance to fungi | immune |
| Packaging | 30 kg sacks |

APPLICATION SUBSTRATE

- ▶ Steel
- ▶ Concrete

FINISHES

Tecwool 825 can provide different finishes: row, float, painted, etc., according to different aesthetic requirements. Once the application is completed and in order to obtain a smooth finish, a roller could be used and pressed slightly over the wet mortar until the desired finish is obtained. It is possible to paint the mortar with elastic acrylic coatings to form a moisture barrier. Before painting the mortar should be completely dry (28 days).



HEALTH AND SAFETY

Tecwool 825 is manufactured with inorganic components such as rock wool, classified according to European Directive 67/548/EEC as Xi; R-38 (health risk-free). Likewise, it is neither toxic nor pathogenic; it does not contain free asbestos or crystalline silica; and it is not affected by fungi growth.

TECWOOL T MORTAR

KEY FEATURES

- ▶ minimal material waste
- ▶ resistance to cracking
- ▶ no corrosion effect
- ▶ long pumping range of spraying material
- ▶ variable finishes (raw, float, painted)
- ▶ easy cleaning with water
- ▶ non toxic, asbestos and glass silica free

DESCRIPTION

- ▶ **Tecwool T** is a rock wool and cement mortar and is the perfect building solution to provide an optimum thermal insulation. Spraying allows a homogeneous coating avoiding heat bridges.
- ▶ **Tecwool T** is incombustible, A1 classified as per standard UNE EN 13501 and has extraordinary sound absorption properties in an acoustic chamber.

APPLICATION SUBSTRATE

- ▶ Wood
- ▶ Galvanised or pre-lacquered metal sheet
- ▶ Synthetic plastic
- ▶ Plaster
- ▶ Bricks or porous substrates
- ▶ Concrete

CERTIFICATES

Tecwool T mortar has been tested in CEDEX laboratory certified by ENAC under UNE-EN normative.



FINISHES

Tecwool T can provide different finishes: raw, float, painted, etc., according to different aesthetic requirements. Once the spraying is completed and in order to obtain a smooth finish, a roller could be used and pressed slightly over the wet mortar until the desired finish is obtained. It is possible to paint the mortar with elastic acrylic coatings to form a moisture barrier. Before painting the mortar should be completely dry (28 days).

HEALTH AND SAFETY

Tecwool T is manufactured with inorganic components such as rock wool, classified according to European Directive 67/548/EEC as Xi; R-38 (health risk-free). Likewise, it is neither toxic nor pathogenic; it does not contain asbestos or crystalline silica; and it is not affected by fungi growth.

TECHNICAL CHARACTERISTICS AND SPECIFICATIONS

| | |
|-----------------------|---------------------------------|
| Composition | cement, rock wool and additives |
| Fire reaction | A1 |
| Bulk mortar density | 175 Kg/m ³ ± 10% |
| Thermal conductivity | 0.0456 W/mk |
| Alkalinity (pH value) | 12.5w |
| Resistance to fungi | immune |
| Adherence | 0.014 N/m ² failure |
| Packaging | 15 kg sacks |

FIRE PROTECTION SYSTEMS

- ▶ smoke and heat exhaust systems
- ▶ fire ventilation systems
- ▶ fire protection of building structures



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