MORTERO TECWOOL 825®

FIRE PROTECTION IN TUNNELS

High Speed - AVE train Tunnel, Málaga (Spain)

DESCRIPTION

Tecwool® 825 is a mortar made of rock wool, cement and small amounts of heat-resistant material manufactured by mercor tecresa® and specifically designed for fire protection against hydrocarbons fires.

It looks like a monolithic block resistant to erosion and semi-exposed or partially covered areas.

TESTS

Tecwool® 825 has been tested in laboratories certified by ENAC or identical international entities pursuant to UNE EN, ASTM or similar standards. Likewise, real scale tests have been performed in tunnels under particularly limiting conditions such as hydrocarbons modified curve (HMC), RWS curve.

APPLICATION AND USAGE

Tecwool® 825 can be applied over concret, metal structure, galvanized sheet, etc.

Before mortar is applied on any surface, the following aspects should be considered:

- The necessity or not of wire mesh should will be depend on the type of the solution and the thickness applied. You need consult our Technical Department.
- The surface to be protected does not require prior primer, any type of bonding bridge.
- The surface to be protected should be free from dust, oil, waste, poorly attached particles, release agents, paint leftover, etc.
- It is recommended to use water with the application hose to wash dirt away from the faces. This will also help achieve a thermal balance between the mortar and the applied surface.
- **Tecwool® 825** can be applied directly over surfaces with a temperature between 2 ºC and 40 ºC, out of this range you need consult our Technical Department.

Application machine:

The proccess of spraying is made by pneumatic spraying machine. This machine sprays dry **Tecwool® 825** by the hose to the nozzle . **Tecwool® 825** neutralizes and mixes in nozzle application where the mortar is mixed with spray water at the nozzle head.

The spraying machine supplies a flow between 3.2 and 18 kg/min. Mortar is applied with a spreading gun perpendicular to the support at a distance between 50 and 150 cm.

Once the mortar has been applied, water should be sprayed to ensure optimum curing.

All warning regarding cement apply to **Tecwool® 825**. Application of this product on non-ferrous metals is prohibited.

Al Salam Street Tunnel, Abu Dhabi (U.A.E.)

Last updated 12/07/16

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FINISHES

Tecwool® 825 can provide different finishes: rugged, smooth, paintec, etc., according to different aesthetic requirements.

Once the application is compelted 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® 825 is manufactured with inorganic components such as rock wool, classified according to European Directive 67/548 CEE, 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 not affected by fungi growth.

TECHNICAL CHARACTERISTICS

Composition	Cement, rock wool and additives.
Fire reaction	A1
Bulk mortar density	385 Kg/m³ ± 10%
Dry density (after 28 days)	843 Kg/m³ ± 10%
Spraying density (wet)	1070 Kg/m³ ± 10%
Alkalinity (pH value)	12,5
Resistance to fungi	Immune.
Marketing	25 kg sacks in 600 kg pallets.
Thermal Conductivity	Max. 0,045 W/m°K a 20 °C

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