

## MP 75 Fire

Technical Data Sheet

2/2024



## MP 75 Fire

Fire resistant gypsum plaster

### Product Description

MP75® Fire is a fire resistant gypsum plaster for interior spaces. Consists of gypsum as a binder in combination with a special mix of lightweight aggregates and additives to ensure good machine application.

- Plaster mortar group P IV (DIN 18550)

### Storage

Bags should be stocked in dry environment that shall not contact water and over the wooden pallets horizontally on a flat line. Partly open and/or damaged bags should not be used. The duration for the storage is 6 months. The product should not be stored in environments where the temperature is higher than 45 °C.

### Standards referred to

MP 75 Fire is certified according to the European Technical Assessment ETA -21/0727. It has CE label and IBR certificate.

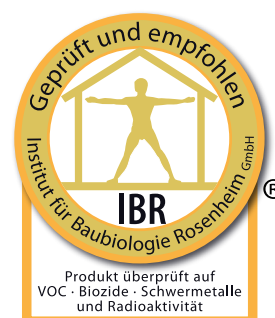
### Field of Application

MP 75 Fire is a product especially developed to provide passive interior fire protection. The function of the product is to protect the listed load bearing capacity of the construction elements against fire.

- Concrete ceilings and walls
- Concrete beams and supports
- Steel beams and supports

### Properties

- Fire resistance
- REI 180 Concrete ceiling and walls
- R 180 Concrete columns and beams
- R 120 Steel columns and beams
- Easy machine application
- Easy application and high performance
- Gypsum based
- Interior use
- White color



## Application

Surface / Floor	Ön Hazırlık
Steel profile and sheet (unpainted / uncoated)	Rusted areas and old coatings must be removed. After cleaning, an alkyd, acrylate, polyurethane, zinc-epoxy, epoxy or zinc- silicate based anticorrosive paint / coating should be applied on the construction according to the manufacturer's instructions.
Steel profile and sheet (painted / coated)	Old paints based on alkyd, alkyd, acrylate, polyurethane, zinc-epoxy, epoxy or zinc- silicate that adhere to the surface in an adequate way are suitable for MP 75 Fire as a substrate. Other existing coatings should be removed. Bearing / bonding test should be performed between the MP 75 Fire and the surface.
Concrete (unpainted / uncoated)	Remove contaminants like dust, oil and grease by suitable tools and methods.
Concrete (painted / coated)	Existing coatings and paints must totally be removed.

### Pretreatment

All substrates on which the product is applied, must be stable, clean and dry and free of grease and dust. The above table must be observed for pretreatment. Bonding tests are recommended before each new application.

### Application

The consistency of the mortar suitable for spraying with the machine must be adjusted with the corresponding amount of water mix (approx. 1.3 to 1.5 bar/ meter mortar hose). The spraying pattern varies depending on the air nozzle to be used. Plaster mortar should be applied in such a way that the required thickness of the plaster is reached by spraying homogeneously in layers of maximal 20 mm thickness at a distance of approximately 30 cm from the surface. For higher thicknesses it's necessary to wait up to 30 min for spraying layer by layer (wet in wet). It's not allowed to spray on hardened material to increase the thickness subsequently. During spraying the application thickness should be controlled continuously.

### Application Thickness

Please check the MP 75 Fire Brochure for the required plaster thickness by taking into account the fire resistance durations.

On Steel;

Minimum thickness 10 mm

Maximum thickness 43 mm

On Concrete;

Minimum thickness 11 mm

Maximum thickness 22 mm

### Application Tools

Knauf PFT® Plaster Machine G4 / G4X

- Rotor: D4-3 or D6-3
- Stator: D4-3 or D6-3
- Mortar hoses: Ø 25 mm
- Spray nozzle: Ø 10 or 12 mm
- Transfer distance: 25 m
- Mixing shaft: G4

### Application Temperature

Application is not recommended in temperatures below +5 °C or above +40°C. Newly applied plaster should be protected against direct sun, frost, rain and wind until it is fully dried.

### Working Time

About 180-300 minutes depending on the plaster surface.

### Hardening Time

If a good ventilation is provided, quick setting of the plaster can be ensured. If hot asphalt is to be applied to the space after the plaster, a very strong ventilation must be provided in order to prevent thermal stresses. Hardening time; For 10 mm plaster thickness, it is 14 days depending on the ambient temperature, humidity and ventilation. In case of inappropriate temperature and humidity, hardening time may increase.

### Plaster Surface

MP 75 Fire finished plaster surface is rough. If necessary the plaster surface can be smoothed with a gauge, and after drying, a smooth surface can be obtained with a flat-surface finishing plaster.

Any coating that can be applied after this process should be selected in such a way that it does not affect / reduce the fire resistance of the plaster.

#### Note

MP 75 Fire, is not suitable for static repair of concrete.

### Safety Instructions

- Wash your hands with plenty of water after handling.
- Use protective gloves/ protective clothing/ eye protection/face protection
- In case of contact with eye: Rinse your eyes cautiously with water for a several minutes. If you have lens and if they are easy to be removed, they should be taken off and rinsing should be continued.
- If eye irritation is permanent: Get medical advice/attention.

### Technical Data\*

Description	Unit	Value	Standard
Reaction to fire	-	A1	TS EN 13501-1
Compressive strength	N / mm <sup>2</sup>	≥ 2.0	TS EN 13279-2
Adherence/Bonding strength	N / mm <sup>2</sup>	≥ 0.2 (on concrete) ≥ 0.15 (on steel)	TS EN 1015-2
Thermal conductivity λ	W / mK	0.23	TS EN 1745
Water vapor permeability	μ	7	TS EN 12086
pH value	-	12 - 13	-
Initial setting time	min	approx. 90 - 180	-
Final setting time	min	approx. 180 - 300	-
Bulk density (powder)	kg/m <sup>3</sup>	540 - 660	-
Hardened mortar density	kg/m <sup>3</sup>	approx. 750	TS EN 1015-10
Productivity (100 kg)	l	approx. 160	-

\*The stated technical datas were evaluated acc. to the respective test standards. Deviations under site conditions are possible.

### Material Consumption\*\*

Product	Approx. Consumption (kg/m <sup>2</sup> )	Approx. Yield (m <sup>2</sup> /bag)
MP 75 Fire (for 10 mm thickness)	6.2	3.2

\*\*The exact consumption can only be determined with a test application on the individual object.

### Packaging

Description	Mass (kg)	Packaging (bags/palette)	Material Number
MP 75 Fire	20	50	548514

### System Performance Values

Please check for detailed information;

[Knauf Technical Website](#)

[Document Center](#)

### Application

It is suggested to follow the technical details and application methods indicated in Knauf system brochures for application.