

HPM 100

Cement based self-leveling
strengthening mortar



PRODUCT DESCRIPTION

HPM 100 is a cement based, polymer modified, high-strength and ultra-high performance self-leveling UHPC strengthening mortar.

EN 1504-3 / R4

GENERAL CHARACTERISTICS

- Application thickness is 2-100 mm. Steel fibers may be added for thicker applications.
- Fully serviceable after 7 days.
- Application temperature is between +5°C and +35°C.
- Service temperature is between -10°C and +80°C.
- If a higher strength is required than the stated values, 6-13mm steel fibers may be added to the mixture.

SPECIAL STRUCTURE

HPM 100 has been developed in Ticem Advanced Structural Technologies laboratories as a result of many years of R&D activities within the framework of university industry cooperation. ticm products, under license of Ticem Advanced Structural Technologies, is produced by Sozeri Industry Co. Inc. in Turkey.

TECHNICAL PROPERTIES

Technical Properties	HPM 100		
	1. DAY	7. DAY	28. DAY
Compressive Strength (EN 12190)	50 MPa	80 MPa	100 MPa
Bending Strength (EN 196-1)	7 MPa	11 MPa	14 MPa
Structure	Cement based, fluid		
Wear Resistance (EN 13892-3)	5.4 – 5.7 cm ³ /50 cm ²		
Heat Resistance	250 °C		
Fire Class (EN13501-1)	A1		
Density (EN 12190)	2400 kg/m ³		
Freeze-Thaw Resistance (CEN TS 12390-9)	< 0,08 kg/m ²		
Water Permeability (DIN 1048)	< 1 mm		
Setting Time (EN 196-3)	5 h		

AREAS OF USAGE

- Foundations of machinery-equipment and pumps.
- Strengthening of reinforced concrete slabs.
- Road repairs where the repair time is limited.
- Repair and strengthening works where ultrahigh performance is required.
- Areas with high early strength requirements.

APPLICATION DETAILS

Before adding HPM 100 in mixing bucket, first appropriate amount of water is poured into the bucket then HPM 100 is added to mixing bucket slowly.

1,9 - 2,1 liters of mixing water is added for one package (20 kg). Mortar needs to be mixed approximately for 5 minutes with mechanic mixer, which has minimum 600 rpm to reach the applicable consistency.

Mixing should be carried out with mechanical mixers instead of hands. After a homogenous mixture is achieved, mortar is rested for 3 minutes in average and it will be ready for application after mixing for another minute approximately.

Wall surface should be cleansed of all kinds dust and foreign substances and it should be moistured. The surface of mortar should be moisturized 12 hours after it gets hardened following the completion of first curing.

Application should not be made when the temperature lower than +5 °C and higher than +35 °C.

CLEANING OF TOOLS

The cleaning of tools used in application can be made with water. If HPM 100 is hardened, it can be cleaned mechanically.

PACKAGING

In 20 kg kraft bags.

RESPONSIBILITY

Application suggestions are based on experimental data. Actual values can vary due to conditions out of control. Suggestions do not take on any other obligations. When the new version of this document is issued, old version becomes invalid.



STORAGE CONDITIONS

When it is stored away from moisture and UV rays, it has 6 months of shelf life. Opened packages should be used in one week preserving the storage conditions.