

HARD TOP Q

EN 13813
CT-C60-F7-AR2

Cement based concrete surface hardener

DESCRIPTION

Surface hardener based on high strength cement with graded quartz aggregates and special additives.

APPLICATION FIELDS

The product is applied on fresh concrete and is used for improving the surface hardness and the abrasion resistance of monolithic concrete floors. Typical applications: warehouses, garages, loading-unloading platforms, corridors, slip resistant ramps etc

CHARACTERISTICS/ ADVANTAGES

- Economical & easy to apply
- Increased durability compared to concrete without hardener .
- Low cost of maintenance
- Increased abrasion resistance compared to conventional concrete without hardener.
- Surface with reduced porosity

PRODUCT INFORMATION

Composition	Portland Cement, graded quartz aggregates and special additives
Colour	Grey powder
Packaging	25 kg paper bag - 1350 kg pallet (54 paper bags)
Storage Conditions	In the original, closed, sealed and indestructible packaging, protected from direct sunlight and frost and at temperatures from +5°C to +35°C
Shelf life	12 months from the date of production in unopened package

TECHNICAL CHARACTERISTICS

Grading of quartz sand:	0.4 – 2 mm	
Compressive strength in 28 days:	63 MPa class C60	(EN 13892-2)
Flexural strength in 28 days :	8.6 MPa class F7	(EN 13892-2)
Wear resistance:	class AR2	(EN 13892)

APPLICATION INFORMATION

Consumption	2 – 5 kg/m ² , depending on the different usages of the floor
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APPLICATION INSTRUCTIONS

Industrial Floors:

The final quality of a high performance cementitious industrial floor not only depends on the surface hardener but also on the design and quality of the concrete below.

Suitable superplasticizer, without retardation, should be added to concrete in order to achieve the required workability for a proper placing. Try to avoid bleeding by controlling the concrete composition and workability. In cases where there is bleeding water on the surface, gently remove it before the application of HARD TOP Q.

HARD TOP Q is evenly spread on fresh concrete as soon as its initial setting has started. In cases where concreting takes place on existing concrete, proper adhesion between fresh and old concrete should be ensured by using a suitable bonding slurry (cement+ acrylic resin MP20) and by installing a steel mesh type T131.

HARD TOP Q is applied at a consumption of 2-5 kg/m² depending on the different usages of the floor.

Initially spread 2/3 of the total quantity of HARD TOP Q and then use a power floater to ensure the product has become an integral part of concrete. Follow by spreading the remaining quantity (1/3) of HARD TOP Q at right angles to the first application and then use again a power floater in order to finish the surface and achieve a monolithic smooth floor. In case an anti-slip surface is required the final finishing is conducted by a hard broom.

After the application stages of HARD TOP Q and as soon as the surface will not be marred by the application (normally 2-6 hrs), use wet burlaps or appropriate curing compounds to avoid the quick

evaporation of water and the creation of hairline cracks.

In case of a laser screed application the installation/spreading of HARD TOP Q can be conducted in one application step

One day after the application of HARD TOP Q, it is necessary to saw cut contraction joints at 3-5 mm wide and on a 15-25 m² area. Apply appropriate joint sealant after concrete has hardened.

Slip resistant ramps:

Concrete surface where an anti-slip ramp will be constructed should be clean and sound. Place anchor bolts on the existing concrete surface using DURA EP BOND epoxy paste, prime the surface using an appropriate bonding slurry of resin MP20 and cement at a mixing ratio of 1:1 by volume and install the steel mesh T131.

Place and level concrete with a medium size aggregate and cement content of 450 kg/m³ at 6-8 cm thickness. Mix HARD TOP Q with water in order to produce a slurry which will be placed and leveled on top of the fresh concrete. Then the creation of the streaks is conducted with the use of a special tool. After the completion of the ramp curing of the floor with the appropriate curing compound is necessary.

COMPLIANCE WITH STANDARDS

It has CE marking and Declaration of Performance as CT-C60-F7-AR2, according to EN 13813.


HEALTH, SAFETY & ENVIROMENTAL PROTECTION

Detailed information and instructions regarding the safe management of the product and in matters of Health & Safety, are provided in the most recent Safety Data Sheet (SDS), copies of which are available on the company's website www.marmoline.gr or upon request.

LEGAL NOTICE

We guarantee the quality of all our products, based on their technical specifications, as described in the Declaration of Performance (CE) and this Technical Data Sheet. Such guarantee refers only to the products that we deliver for use and never to its application or final result, which largely depends on the experience and quality of work of each user and on the application conditions. The user is advised to test the product on a small scale, and if he is satisfied with the result, then to use the product on large scale in his project. All data stated in this Technical Data Sheet are based on laboratory tests. The really measurable data might differentiate due to conditions that are not subject to our control. The recommendations and implementation instructions must be considered by the user as indicative, and always with given that the product has been traded and traded and stored according to its instructions. As it is not possible to control the parameters/conditions of its application product in practice, no guarantee is provided for the final result of each application. Consequently, no legal liability of the Company can be established based on the information and instruction given in this Technical Data Sheet. The Company reserves the right to modify data listed in this Product Data

Sheet, with no previous warning. Users must refer to the latest version of the product Technical Data Sheet.

 13 DoP:053 MARMO-CPR
NORDIA S.A. 364 Kifissias Av., 15233 Chalandri, Athens/ Greece
EN 13813:2002 MARMOLINE HARD TOP Q Floor screed
Reaction to fire: <i>A1_{fl}</i> Release of corrosive substances: <i>CT</i> Compressive strength: <i>C60</i> Flexural strength: <i>F7</i> Wear resistance : <i>AR2</i>