

## HARD TOP Q

### CEMENT BASED CONCRETE SURFACE HARDENER

*Mortar for multiple uses*

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

**Usages:** 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.



**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

**Packaging /distribution :** Bags of 25kg  
 Palette of 1350 kg, 54 paper bags of 25 kg.


**Storage:** 12 months from the date of production in unopened package, in a dry place.

**Safety precautions :** This product contains cement and reacts as alkaline with moisture, so it is classified as irritant. It must be used with care according to the instructions for use. In order to avoid any injuries due to alkalis of the cement, wear gloves, protective glasses and avoid breathing the dust. Please consult the SDS of the product.

**Specifications :** EN 13813:2002 (CT-C60-F7-AR2)

**TECHNICAL DATA:**

<b>Color :</b>	Cement grey
<b>Grading of quartz sand:</b>	0.4 – 2 mm
<b>Compressive strength in 28 days:</b>	63 MPa class C60 ( EN 13892-2 )
<b>Flexural strength in 28 days:</b>	8.6 MPa class F7 (EN 13892-2)
<b>Wear resistance:</b>	class AR2 (EN 13892-4 )

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EN 13813 (CT-C60-F7-AR2) HARD TOP Q Cementitious concrete surface hardener
Reaction to fire: A1 <sub>fl</sub> Release of corrosive substances: CT Compressive strength: C60 Flexural strength: F7 Wear resistance : AR2

**APPLICATION:**

**Consumption:** 2 – 5 kg/m<sup>2</sup>, depending on the different usages of the floor

**Application mode:** *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 T131.

HARD TOP Q is applied at a consumption of 2-5 kg/m<sup>2</sup> 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 m<sup>2</sup> 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/m<sup>3</sup> 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.

*The above application guidelines are indicative, for the correct use of the product. For more technical details please contact the company's technical department*

*We guarantee the quality of all our products, on the basis of 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 depend 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. This edition of technical data sheet automatically cancels any previous version*