

## **TRI- HARD TOP**

### **Non-metallic cementitious floor hardener**

#### **Description**

**TRI- HARD TOP** is a surface hardening compound is a quality controlled, factory Blended powder which is ready to use on site. It consists of hard wearing aggregates selected for their physical properties of abrasion and wear Resistance, Portland cement and special additives to improve workability.

This combination produces a material which is easy to trowel in the surface of fresh, wet concrete.

**TRI- HARD TOP** cures monolithically to provide a dense nonporous surface which is extremely hard wearing and abrasion resistant.

**TRI- HARD TOP** is available in natural (concrete Grey) color as standard. special Colors, including Brick Red, Green .



#### **Standard compliance**

The product is certified by (National Research Centre)

- ASTM (C579)
- ASTM (D4060)
- ASTM (C413)

#### **Design criteria**

The base concrete should have a minimum cement content of 300 Kg/m<sup>3</sup>. The concrete mix should be designed to minimize segregation and control bleeding , although some limited bleed is desirable to ensure sufficient moisture is available to wet out **TRI- HARD TOP** when it is first applied. the use of water reducing admixtures from **Tri-Mix** range is strongly recommended in order to achieve water/cement ratio below 0.55.

#### **Uses**

**TRI- HARD TOP** provides a highly abrasion resistance surface to fresh concrete floors by the dry shake method which ensure that hard wearing surface bonds monolithically to the base concrete . It is ideally suited for all industrial areas subjected to heavy traffic, e.g. power stations, agricultural buildings, distillation plants , laboratories , warehouse floors , work shops and all production areas.

#### **Advantages**

- Supplied ready to use - no additive required.
- Provides a hard abrasion resistant surface.
- Forms monolithic bond with fresh concrete.
- Hard, dense surface resistant to oil and grease.
- Available in range of colors to improve working environment.
- Non metallic aggregates - will not rust when wet.

**Technical Data @°25c**

Appearance	Concrete color (Grey)- Brick Red - Green.
Base	Cement , additives and special aggregates
Abrasion resistance ASTM D4060	179.3 mg loss in weight
Abrasion resistance for concrete surface	Approx. 316 %

**Directions for use**

**TRI- HARD TOP** should be applied at even application rate of 3 - 5 Kg/ m<sup>2</sup>. It is recommended that the floor be marked off into bays of known area.

Sufficient materials should then be laid out to meet the recommended spread rate.

Application of Tri-Hard Top should begin without delay when the base concrete has stiffened to the point light foot traffic leaves an imprint. Any bleed water should now have evaporated, but the concrete should have a wet sheen.

In large floors it will be necessary to work progressively behind the laying team to ensure application at the correct time.

**TRI- HARD TOP** is applied in two stages:-

**(1)** The first application is broad cast at an even rate of 3 Kg/ m<sup>2</sup> onto the concrete surface.

When the material becomes uniformly dark by the absorption of moisture from the base concrete, this first application can be floated .

Wooden floats, or on large areas, a power may be used.

It is important however, that the surface is not overworked.

**(2)** Immediately after floating, the remaining 2 Kg/ m<sup>2</sup> of **TRI- HARD TOP** are applied evenly over the surface at right angle to the first.

Again, when moisture has been absorbed the surface can be floated in the same way as before.

Final finishing of the floor using the plates of the powerfloat can be carried out when the floor has stiffened sufficiently so that damage will not be caused.

any addition of water tower out the surface on either the first or second application of Tri-Hard Top will be detrimental to the overall quality of the floor.

**Curing**

Proper curing of concrete floors treated with **TRI- HARD TOP** is essential to the physical properties of the finished floor.

The most effective method of curing is to use **Tri-Cure** which should be applied on the finished floor 10 minutes after the power floating operation has been completed.

**Coverage**

3 Kg/m<sup>2</sup> for light traffic

5 Kg/m<sup>2</sup> for medium traffic to heavy traffic.

**Package**

**TRI- HARD TOP** is available in packing Sack 25 kg .

**Shelf Life**

12 months in unopened condition if stored as Per the recommendations.

Exposure to high temperature and humidity will result in considerable deterioration of the product and reduce its shelf life.

**Storage conditions**

- Store the material in a cool, dry and covered place.
- Temperature should not exceed 35 °C.
- Do not expose the pails to direct sunlight and keep away from all sources of heat.



**Factory & Head Office:**

6 October City - 4th Industrial Zone - Al Oula Industrial Zone Plot No.: 14  
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## Health and safety responsibility

- Workplace health and safety is all about sensibly managing risks to protect TRI-CHEM's workers and business.
- ISO 45001 is a systematic health and safety management is characterized by strong leadership involving managers, workers, suppliers, contractors and customers and also health and safety management is an essential part of the movement towards sustainable development.
- Spillages should be washed down immediately.
- PPE in accordance with the health and safety rules should be used during the materials application.
- For irritant effects of the non-cured material, avoid contact with skin and eyes during storage and application.

## Sustainability and environmental accountability

- TRI-CHEM's Environmental sustainability is the accountability to conserve natural resources and protect global ecosystems to support health and well-being for this a more positive approach is that accountability guides the actions of power-holders towards more socially and environmentally sustainable results.

## Technical support

- For any technical support, please contact TRI-CHEM technical office or representatives.

## Institutional Excellence and quality performance

- Institutional excellence in TRI-CHEM refers to achieving high levels of performance, quality and effectiveness in all aspects of TRI-CHEM company's work, it involves a systematic and continuous effort to improve an organization's performance by applying best practices, innovative approaches and evidence-based strategies, institutional excellence spans various areas, such as training , research, innovation, community engagement, governance, management and sustainability, and involves setting high standards, measuring performance against these standards and continuously improving performance to meet or exceed these standards, excellence in TRI-CHEM also includes a culture of continuous improvement and learning, where everyone in the organization is committed to achieving the organization's goals, working together to find solutions to challenges and opportunities, and requires a collaborative approach that includes all stakeholders.

- All products originating from TRI-CHEM facility are manufactured under a quality management system independently certified to conform the requirements of the quality standards ( ISO 9001:2015).

## Disclaimer

- While TRI-CHEM guarantees its products against defective materials, the use and application of these products are made without guarantee since the conditions of their application are beyond its control.
- TRI-CHEM is recommended to verify with TRI-CHEM that the product is suitable for the intended use, and that this data sheet version is the latest one.
- TRI-CHEM may modify it without prior notice and technical characteristics are listed for guidance only.
- Any specification, recommendation or information mentioned in this product data sheet is (to TRI-CHEM's best knowledge) true and reliable.

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• However, because TRI-CHEM has no influence on the application method of these products and the care taken, the company cannot accept any liability arising from the use of its products.

TRI-CHEM's warranty is therefore limited to the quality of the materials supplied which are guaranteed against defective materials.



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