

Talrakflortop® HT

Single component ready to use cementitious
Monolithic concrete floor hardener



The Construction Alchemists

Description

Talrakflortop HT is a factory blended prepacked cementitious concrete floor hardener ready for onsite application by dry shake-on method. It comprises of special hardwearing aggregate, additives and binders formulated to provide abrasion resistant properties to the cured concrete floor. The material which is easy to spread on green concrete and trowel into the surface of fresh, wet concrete to harden monolithically with concrete floor. The aggregates used in the product being non-metallic, will never rust and disintegrate.

Features & Benefits

- Ready-to use pre packed formulation
- Cures monolithic with fresh concrete to provide high abrasion resistant surface
- Anti-oxidation aggregates do not corrode even when the floor is subjected to drying and wetting cycles
- Cost effective, no additional floor treatment is required
- User friendly - Applied by dry shake on process can be finished with manual or power trowel
- No dusting of floor

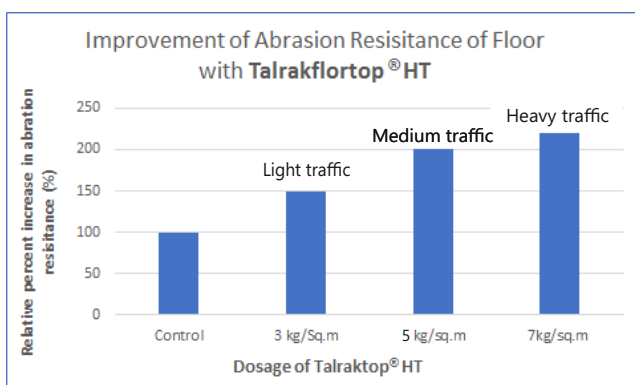
Primary Application

Talrakflortop HT is used for surface hardening of new concrete floors to prevent dust generation and to reduce wear and abrasion of floors. Areas of application include warehouses, Industrial floors, Railway platforms, parking lots, corridors etc.

Technical properties

Abrasion resistance (IS: 1237 - 2012)

Talrakflortop® HT have been tested as per IS:1237 - 2012 against control concrete for abrasion resistance. Test results showed that Talrakflortop® HT improves the abrasion resistance of concrete by 225% when tested as per guidelines in IS:1237 - 2012.



Specification clause

Non Metallic Surface Floor Hardener

All concrete floors shall be surfaced or broadcast with Talrakflortop® HT a non-metallic monolithic surface floor hardening compounds containing rust free, hardwearing aggregates. The aggregates shall have a Moh's hardness of not less than 7-8.

Strength of Concrete

Talrakflortop® HT shall possess a minimum compressive strength of 60MPa when tested as per the guidelines in IS: 516 - 1959.

Application Instruction

Flooring Concrete

The base concrete mix should have a minimum cement content of 300 kg/m³. The concrete mix should be designed to minimize segregation and bleeding. Free water cement ratios of less than 0.55 are required. The concrete should have a slump of between 75 and 100 mm (Talrakplast® range of water reducing admixture is recommended). The base concrete should be laid and compacted in accordance with good concrete practice. Accurate finished profile and minimum laitance build-up should be ensured. Particular attention should be paid to bay edges and corners to ensure full compaction.

Recommended Rate of Application of Talrakflortop HT

Rate of application (kg/m ²)	Intensity of Traffic	Average Wear as per IS : 1237- 2012
7	Heavy	<2mm
5	Medium	>2mm but <3.5mm
3	Light	>3.5mm but <4mm

It is recommended that the floor be marked off into bays of known area. Sufficient material should then be laid out to meet the required spread rates. Application of Talrakflortop® HT can begin when the base concrete has stiffened to the point when light foot traffic leaves an imprint of about 3mm. Any bleed water should by now have evaporated. Talrakflortop® HT is applied in two stages:

(a) The first application is made using 50% to 70% of the total material. Talrakflortop® HT is evenly broadcast onto the concrete surface. When the material becomes uniformly dark by the absorption of moisture from the concrete this first application can be floated. Wooden floats or, on large areas, the power trowel with disc may be used. It is important, however, that the surface is not over worked.

(b) Immediately after floating, the remaining Talrakflortop® HT is sprinkled evenly over the surface. Again moisture is absorbed and the surface can be floated in the same way as before.

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

Timing of Application

The timing of application Talrakflortop® HT is important and critical. If applied too early, bleed or excess water will wash away the cementitious content of the products, thereby making them ineffective. Also denser aggregates sink into the concrete. If the application of Talrakflortop® HT is done too late, there will not be sufficient water/moisture to absorb the material into the concrete. Material forcibly applied and trowelled thus, will cause cracks on the surface later, as there is no water/moisture to hydrate the product.

Bay edges

While applying Talrakflortop® HT at the edges of the concrete floor or, at the end of bays, extra precaution should be taken by way of sprinkling more material and finishing it smoothly with a steel trowel. This is an additional protection particularly to bay edges where the reaction due to heavy or impact is felt more.

Curing

Tests have shown that proper curing of concrete floors treated with products such as Talrakflortop® HT is essential to ensure the physical properties of the floor. The most efficient method of curing is by using Talrakcure® AS, curing membrane which conforms to ASTM specifications. However, in indoor applications where curing conditions are less critical and breakdown of the membrane is slower, alternative approved methods of curing such as polythene sheeting or water ponding are acceptable.

Coloured floors

Talrakflortop® HT can be supplied in selected colours. When a coloured floor is required, a sample should be asked for and a site trial is strongly recommended, before applying to the entire area. There may be slight variations in colours from different batches of the material.

Liquid Surface Densifier

Penetration type surface hardener Florsil is recommended to densifying the floor and dust proof property.

Limitations

In case of concretes with optimised water cement ratios less than 0.5, Talrakflortop® HT shall not be broadcast in excess of 3 - 4 kg /m². For such applications, a site trial is recommended. Talrakflortop® HT is not advised for broadcast over concrete in sub-zero temperatures, such as, floorings for cold storage etc. In case, the concrete floor treated with Talrakflortop® HT is expected to suffer sulphate attack, it is recommended to provide the Talrakflorkote PU coating on Talrakflortop® HT treated floor.

Estimating Packaging

Talrakflortop® HT is supplied in sealed 25 kg HDPE bags.

Coverage

Please refer the table under "Recommended rate of Application of Talrakflortop® HT" for desired abrasion resistance.

Storage

Talrakflortop® HT has a shelf life of 12 months if kept in dry store in original, unopened containers. If stored at high temperature and/or high humidity conditions the shelf life may be reduced.

Precautions

Talrakflortop® HT is supplied ready to use at site in pre-blended bags. Cement or aggregates should never be added to the product.

Health & Safety instructions

Talrakflortop® HT contains hydraulic cement and is chemically an alkaline material when in contact with water. Prolonged contact with the skin should be avoided. Any eye contamination should be washed immediately with plenty of clean water and medical advice sought. All precautions and safety gears that are required when working with concrete shall be applicable while working with Talrakflortop® HT. While broadcasting the product on the concrete use of eye protection glasses are recommended.

Important note :

Talrak products are guaranteed against defective materials and manufacture and are sold subject to its standard terms and conditions of sale, copies of which may be obtained on request. Whilst Talrak endeavours to ensure that any advice, recommendation specification or information it may give is accurate and correct, it cannot, because it has no direct or continuous control over where or how its products are applied, accept any liability either directly or indirectly arising from the use of its products whether or not in accordance with any advice, specification, recommendation or information given by it.



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An ISO 9001:2015 Certified Company

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