



# Dreitop<sup>®</sup> FH STD

Non-metallic, dry-shake concrete surface hardener for high Abrasion-resistant floor topping in heavy-stress areas

## Product Properties

- Ready to use
- Non-metallic and non-rusting, waterproof (for wet rooms and exteriors)
- Durable and maintenance free provides high wear resistance to concrete surfaces
- Withstands almost all type of mechanical stresses such as rolling, sliding, percussion impact, abrasion etc.
- Deicer resistant and resistant to petrol, mineral oil etc.
- Non-skid

## Areas of Application

- Suitable for application in automobile plants, aircraft hangars, foundries, dairies, tanneries, breweries, chemical plants, electrical plants, power plants, food industries, pharmaceutical plants, printing presses, public buildings, metallurgical industry, military and ammunition factory, slaughter houses, steel mills, etc.
- Also suitable for toppings & floorings of storage warehouses, loading and unloading bays, civil engineering and hydraulic structures, passage-ways, exhibition halls, stadiums, railway platforms, utility buildings, bunkers and courtyards, traffic use, workshops, shop floors, shipyards, car-ramps, or for any indoor or outdoor floor installations etc.
- All areas subjected to heavy wear and tear, rolling and impact

## Application Notes

**Dreitop<sup>®</sup> FH STD** is a ready to use, non-metallic, floor and surface hardener based on hard natural aggregates. This is to be applied by dry shake method in 2 operations, on freshly floated concrete or a compensatory mortar topping. **Dreitop<sup>®</sup> FH STD** provides wear resistance to concrete surfaces thereby extending the service life of industrial, commercial and residential floors. The floors are rendered tough, wear resistant, dust free, physiologically harmless and above all durable and maintenance free.

**Dreitop<sup>®</sup> FH STD** is a unique combination of selected cementitious binder modified by polymers (to impart plasticity and high strength) blended with well-graded, cubical, natural hard aggregates. The grading is most critical and ensures maximum possible surface density. When applied **Dreitop<sup>®</sup> FH STD Standard** provides a denser surface with lower permeability coupled with increased wear and impact resistance. It bonds monolithically to the base concrete and is suitable for both old or new floors.

The greatest advantage of **Dreitop<sup>®</sup> FH STD** over conventional metallic hardeners is the non-rusting property, which enables its use in wet rooms as well as for outdoor application **Dreitop<sup>®</sup> FH STD** floors are able to withstand almost all types of mechanical stresses such as rolling, sliding, percussion, impact, abrasion etc. and are very economical when compared to alternatives like epoxies and other liquid plastics.

### Advantages

Provides highly wear and abrasion resistant toppings that are non-dusting, non slip and antiskid even in cases of oil spillages.. It imparts High density and requires minimum maintenance. It imparts increased strength, impact resistance and twice the abrasion resistance as compared to normal concrete floor.

### Instructions for use

**Dreitop<sup>®</sup> FH STD** is suitable for application on both old or new floors. The application varies in both cases and is shown below:

#### A. Existing concrete floors by using a compensating screed

layer between old floor and **Dreitop<sup>®</sup> FH STD**.

**B Newly cast floor** monolithic construction with **Dreitop<sup>®</sup> FH STD** incorporated into Concrete Surface.

In the first case, i.e. existing concrete floors, the base concrete should be sound, clean and free from oils and other contaminations to ascertain the proper bonding of the compensating layer. The compensatory screed layer can be bonded to the substrate using a ready to use polymer mortar like **Zentrifix AS + Nafufill BB2** or a cement-sand mortar (1:2) mixed with **Nafufill** admixed Water (1:3) slurry. The screed layer itself should be 25-30mm thick and should have aggregates (50% of 0- 4mm and 50% of 4-8mm), cement (400kg/m<sup>3</sup>) and w/c of 0.45 to

**0.5**. This should be well compacted and **Dreitop<sup>®</sup> FH STD** can be broadcast after initial set.

New concrete floors should be cast in accordance with best concrete practices. The cement content should be atleast 300kg/cum and concrete should have a 28-day strength of minimum 30 N/mm<sup>2</sup>. The bleed water should evaporate and after initial set **Dreitop<sup>®</sup> FH STD** can be broadcast.

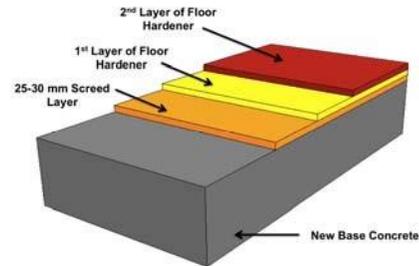
**Dreitop<sup>®</sup> FH STD** is a powder and should be applied in two operations. A fixed area should be marked on the floor and proper quantity of **Dreitop<sup>®</sup> FH STD** should be measured as per consumption. The concrete or the compensating screed base should be free from residual bleed water and sufficiently hardened to allow light foot traffic. Half or one-third of the total quantity of **Dreitop<sup>®</sup> FH STD** should be evenly dry broadcasted by hand or scoops. Once the material becomes evenly dark by absorption of surface water, float it using wooden or steel trowels, but do not over work the surface. Immediately thereafter, broadcast the balance of the **Dreitop<sup>®</sup> FH STD**, in a similar fashion but at right angles to the first application and float it. Final finishing can be carried out by normal methods. For best results, vacuum dewatering and power floats should be used. Proper curing should be ensured. Foot traffic can be allowed after 18 hours and heavy stresses should be allowed after minimum one week's time. Since performance of **Dreitop<sup>®</sup> FH STD** depends upon the application, following precautions as given below should be taken:

## Further Instructions / Precautions

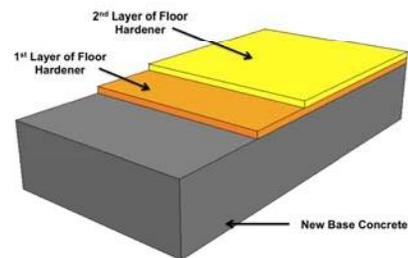
### Precautions

- ❑ **Dreitop® FH STD** application should begin at the time when the base concrete has reached initial set and has stiffened enough to enable light foot traffic and leaves an impression of about 2-3 mm.
- ❑ The bleed and surface water should have been evaporated. Too early application will sink the aggregates and give rise to dusting and too late application will not hydrate the binder of **Dreitop® FH STD** thereby lowering the strengths.
- ❑ Curing is absolutely essential and can either be carried out by conventional methods or by using membrane forming curing compounds like **Emcoril**.
- ❑ Treat areas adjacent to walls, columns and bay edges first. Broadcasting of **Dreitop® FH STD** should be in perpendicular directions in two operations.
- ❑ Since the grading of aggregates in **Dreitop® FH STD** plays important role in the quality of the material as well as the surface, always use in multiples of full packs. If in case consumption of half or a part bag is called for, empty full bag, mix thoroughly and use half the contents.

### Application on old concrete surface with an intermediate screed layer



### Application on a new concrete base



## Technical Data For Dreitop® FH STD

Characteristic	Unit	Value	Comments
Consumption (Heavy Traffic)	Kg/m <sup>2</sup>	6 - 9	For traffic with hard wheels, abrasion, impact, rolling, grinding, sliding of heavy granular goods, heavy foot traffic etc.
Consumption (Medium Traffic)	Kg/m <sup>2</sup>	4 - 6	For traffic with medium duty wheels, grinding and sliding of light to medium weight granular goods, heavy pedestrian traffic, light automobiles etc.
Consumption (Light Traffic)	Kg/m <sup>2</sup>	2.5 – 3.5	For traffic with light duty wheels, soft wheels, sliding and rolling of light goods, primarily grinding action, unusual wear and tear, light automobile traffic, heavy pedestrian traffic etc.

## Product Characteristics for Dreitop® FH STD

<b>Type of Product</b>	Non-Metallic Dry-Shake Floor Hardener
<b>Form</b>	Powder
<b>Colour</b>	Grey
<b>Shelf Life</b>	6 Months from date of Manufacture
<b>Delivery</b>	30 kg sacks
<b>Storage</b>	In Unopened Packaging. Protect from Rain, Direct Sunlight, Heat and Frost
<b>Disposal</b>	Empty packs completely and dispose off carefully to protect our Environment

**Note:** The information on this data sheet is based on our experiences and correct to the best of our knowledge. It is, however, not binding. It has to be adjusted to the individual structure, application purpose and especially to local conditions. Our data refers to the accepted engineering rules, which have to be observed during application. This provided we are liable for the correctness of this data within the scope of our terms and conditions of sale-delivery-and-service. Recommendations of our employees, which may differ from the data contained in our information sheets, are only binding if given in written form. The accepted engineering rules must be observed at all times. E. & O.E.

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