

## Monolithic fresh concrete surface hardener with special liquid binder

### USES

**METOP 3EX** is a three component cementitious dry shake hardener and binder that gives the finished concrete surface very high abrasion resistance as well as resistance to some mild chemicals.

### Description

**METOP 3EX** consists of three components, ready made cementitious high quality colored concrete surface hardener plus 2 component special binder .The liquid mixture is applied in three steps during the application of the dry shake hardener .

**METOP 3EX** contains special natural very hard mineral /metallic aggregates(  $AL_2O_3 + Fe_3O_4$  ) which **never rusts** , cement , special chemical additives and a 2 component special binders

**METOP 3EX** is applied directly to the surface of freshly placed concrete slabs. It gives high abrasion resistance to the applied surface and protection to some mild chemicals.

-**METOP 3EX** is a three component material. Applied on fresh concrete surface.

-**METOP 3EX** hardener becomes an integral with the concrete surface .

### APPLICATION AREA

- factory floors ( where no chemicals or acids of high concentration are present)
- textile factories
- Automotive factories
- Car parks and garages
- Warehouses
- Loading platforms,
- Floors subjected to mild chemicals such as food market floors, slaughters, food stores etc where some mild chemical and acids might form . It can be used anywhere were the floor is subjected to heavy vehicle traffic and some mild chemicals are present.

### COLOR

**METOP 3EX** concrete surface hardener is available on order in dark Gray, Brick red and green colors.

Color	Dark gray ,Brick red, Green
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### Design criteria

Base concrete :

High quality concrete mixture must be used with a minimum 250-300 kg/m<sup>3</sup> cement content.

The concrete mix and water cement ratio must be designed to minimize segregation and excessive bleeding. As **METOP EX** is a dry shake hardener some surface water will be necessary to provide moisture for the powder. The water/cement ratio should not exceed 0.55. The base concrete should have an on site slump of between 75 and 100 mm.

### Instructions for use

#### -*Site preparation*

- \*Finish all necessary soil compaction and floor preparation work before placing the concrete.
- \*Sub grade must be well drained and must be graded in uniform thickness to create uniform load bearing characteristics and eventually reduce cracks ,

#### - *Concrete placement*

- \* Protect the working area from wind and direct sunlight. Preferably finish concreting work, after finishing roofing and wall construction.
- \* The concrete forms must be positioned in their correct positions one or two days before placing the Concrete, taking into consideration joint locations such as control and construction joints.



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\* Always use good quality concrete mix suitable for industrial floors and prepared according to internationally accepted standards.

\* Thickness of the placed fresh concrete should not be less than 10cm especially in industrial floors.

\* Discharge the concrete directly from the concrete mixer truck. Deposit concrete uniformly in front of the vibrating screed.

\* The grade behind the screed must be checked frequently over vibration must be avoided to stop excess fine material from coming to the surface.

\* The surface is then bull floated with wood or magnesium floats.

**METOP 3EX application steps** (For a coverage of 400g/m<sup>2</sup>):

\* Mix component A and B well then add 10-15% water (and pigments if necessary) and mix again together.

\*Apply with a roller or spray gun approximately 250 g /m<sup>2</sup> of the prepared METOP 3EX liquid .

\*Sprinkle 6 kg/m<sup>2</sup> METOP EX on the surface.

\*float and Trowel the surface.

\*Apply the remaining METOP 3EX on the surface some of the remaining liquid can also be applied during the trowelling operation.

\*Saw cut the joints after the 2 day.

\*Fill the joints with Fillerex joint filler after 14 days from placing the concrete.

\*Protect the surface and do not apply any load for atleast one week after placing the floor.

\*One third of the liquid is measured and 200 % water is added to component B and applied to the surface of the fresh concrete

-Then METOP EX is thrown on the surface (6 kg/m<sup>2</sup>) and trowelled .

-The remaining liquid is applied also by mixing 200% water to component B first then mixing it with component A and applying it as a top protective coating and there is no need to use any curing agent.

-Throw away any remaining mixture and do not use later.

### Characteristics of 3EX binder

-Contains a non ionic emulsifier,

Otherwise un modified.

-Offers high hardness

-Gives chemical resistance and protection against corrosion.

### Important characteristics of METOP 3EX

-METOP 3 EX never rusts

-It has special aggregate design which gives

it high quality characteristics.

- It gives maximum protection to the surface

of the concrete.

- It can be applied in areas where mild chemicals are in comparison to normal cementitious surface

hardeners which

can not be used under the same conditions.

-Most important aspect to remember is that the application procedures must

be performed by very well

experienced workmen in this field of work.

-A slight non uniformity of the final color of the finished floor is expected as it is

the case when using

cementitious hardeners .

-Any further technical information can be obtained from our main office.

### Production

**METOP 3EX** is usually produced on purchase order as modified METOP EX plus special 3EX binder.



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### Cleaning

All tools should be washed with water immediately after use.

### COVERAGE :

6-15 kg/m<sup>2</sup> cementitious surface hardener can be used in industrial floors. With 600 g/m<sup>2</sup> , liquid binder.

## LIMITED WARRANTY

All recommendations, statements and technical data herein are based on tests we believe to be reliable and correct also based on our long experience in this field of construction.

METOP LTD. Warrants it's products ( METOP 3EX) to be free of manufacturing defects and contain best quality ingredients. Since no control is exerted over it's application and use METOP LTD. Makes no warranty ,either expressed or implied, concerning this product.

Extra and special guaranties can be granted to certain big project by obtaining mutual agreements between concerning parties.

