

BP-TekniFloor Plus

High Abrasion Resistant Dry Shake Floor Hardener

Description

BP-TekniFloor Plus is a pre-mixed, non-rusting floor hardener used to form monolithic hardened concrete floors. It provides a superior abrasion resistant surface and inhibits dust formation.

Application Area

- ✓ Mechanical workshops.
- ✓ Industrial Floors & warehouses.
- ✓ Aircraft hangars.
- ✓ Basements and cellars.
- ✓ Garage for light vehicles.
- ✓ Storage rooms.
- ✓ Corridors and halls.
- ✓ Parking areas.
- ✓ Loading platforms.

Advantages

- ✓ Fast and efficient
- ✓ Excellent abrasion and slip resistance
- ✓ Forms a monolithic bond with concrete
- ✓ Resistant to oil and grease
- ✓ Does not rust
- ✓ Extremely strong, hard wearing, abrasion and impact resistant floor
- ✓ Forms dense non porous floor
Non-staining, non-oxidizing and non-metallic

Typical Properties

PROPERTY	VALUE
Component	Single
Form	Powder
Hardness (Aggregate)	8-9 (Mohs scale of hardness)
Appearance	Gray and Coloured powder
Abrasion Resistance	Gives at least 300% improvement over plain concrete
Standard	ASTM B117-97 BS 6431 ASTM C779 / C779M
Resistance to Rusting	No rusting after salt spray (ASTM B117-97)
Adhesion to Concrete	Monolithic Bond
Indentation Resistance	BS8204 < 1 mm
Compressive Strength	15.0 N/mm ² @ 28 days
Flexural Strength	3.0 N/ mm ² @ 28 days
Bonding Strength	>0.5 N/ mm ² @ 28 days

Surface Preparation

For single course monolithic floors Concrete should be capable of achieving a 28-day compressive strength of 20 Mpa (30 Mpa for heavy duty traffic areas) with a slump between 75mm and 100mm. Concrete should not contain calcium chloride. Concrete should not segregate and bleed or contain more than 3% air. Do not

use microsilica in the concrete as this can lead to problems with crusting when the dry shake is applied. **BP MegaFlow SP 103** water reducing admixtures are recommended for concrete placement and optimum performance. Strike off concrete level. Further level and consolidate using a wooden bull float. Complete this operation before any bleed water appears. If there is free-bleed water on the surface, remove it just prior to the floating. The base concrete should then be allowed to stiffen sufficiently to bear the weight of a finisher before proceeding to the next stage.

Application Guidelines

BP-TekniFloor Plus is applied as a dry compound onto the fresh concrete surface; the application is achieved by hand or mechanical application. Hand application is normally completed after the initial set and floating of the concrete. Mechanical application is commonly performed immediately after concrete placement, before the initial set of the concrete has taken place. Using a wooden float, work the material into the concrete ensuring that the material becomes an integral part of the surface. Broadcast the balance material, allow the material to absorb moisture and then float with a wooden float. When the surface is sufficiently firm enough to take the weight of power float, finish off by means of a power trowel. Extra care should be taken while applying the floor hardener at bay edges and joints. Using a raised trestle which spans the slab, the material is broadcast by hand onto the wet concrete surface. The application is carried out in two stages.

- 1) Apply two thirds of the required material to the concrete ensuring uniform distribution.
- 2) Allow applied material to absorb moisture from the concrete surface; a uniform darker colour will be apparent.
- 3) Using a wooden float, work **BP-TekniFloor Plus** into the concrete ensuring material becomes an integral part of the surface.
- 4) Apply the balance of material. Again wait until material has obtained a darker colour before floating with a wooden float.
- 5) When surface is sufficiently firm enough to take the weight of a man leaving only minor indentations, **BP-TekniFloor Plus** should be finished off by means of a power trowel. A smooth slip resistant finish can be obtained, but the surface should not be overworked.
- 6) If manual finishing with steel trowels is to be undertaken, this should take place

BP-TekniFloor Plus

before concrete becomes firm enough to take foot traffic.

Application Rate

BP-TekniFloor Plus shall be applied at the following rates:

End Use	Application Rate
Foot Traffic	2 kg/m ² or low water cement ratio concrete
Light Traffic	2-3 kg/m ²
Medium Traffic	3-4 kg/m ²
Heavy Traffic	4-5 kg/m ²
End Use	Application Rate

Curing

BP-TekniFloor Plus treated concrete must be protected to prevent premature moisture loss and crazing immediately after final finishing. Water cure by mist spray or by spreading wet burlap/moist hessian over the surface. Alternatively suitable curing compound from CP-JetCure range may be used.

Packaging

BP-TekniFloor Plus is packed in 25kg moisture resistant bags.

Colour

Gray, Light Gray, Off-white, Green, Red, Yellow, Royal Yellow, etc.

Storage & Shelf-life

12 months from date of manufacture when stored under warehouse conditions in original unopened packing. Extreme temperature / humidity may reduce shelf life.

Limitations

For heavy-duty traffic areas, concrete with a minimum strength of 30N/mm² should be used at 28 days. To

minimise shrinkage cracking, consider the use of **Conpacmix (BD) Ltd.** water-reducing admixtures. Do not use calcium chloride in concrete over which shakes containing metallic aggregate and/or colouring pigments will be applied. At temperatures over 29°C, at low humidity or when placing concrete without protection from wind or sun, erect sunshades or windbreaks the use of **BP-JetCure GP** curing products is essential. Do not use salt water or salt contaminated aggregate in concrete over which shakes containing metallic aggregate or colour will be applied.

Cleaning

Clean all equipments and tools with water immediately after use. Hardened material can be removed mechanically.

Health and Safety

This product contains cement powders which, when mixed with water or upon becoming damp, release alkalis that can be harmful to skin. During use, avoid inhalation of the dust and contact with the skin or eyes. Gloves, goggles and suitable mask must be worn. Contact with skin, eyes, etc. must be avoided. If swallowed seek medical attention immediately. Regarded as non-hazardous for transportation. Do not reuse containers. To be disposed off as per local rules and regulations.

Quality & Care

Conpacmix (BD) Ltd acquired German technology for an updated production facility and set up a state of the art laboratory facility for conducting regular quality assessments on raw materials procured and finished products. Process from procurement of raw materials to finished products, are managed by qualified and experienced engineers, chemists and technicians.



Note: Field service where provided does not constitute supervisory responsibility. Suggestions made by **Conpacmix (BD) Ltd.** either orally or in writing may be followed, modified or rejected by the owner, engineer or contractor since they, and not **Conpacmix (BD) Ltd.**, are responsible for carrying out procedures appropriate to a specific application.

Manufacture:

