

MasterTop 450 PG

Former: MASTERTOP 450 P

Pumpable / pourable corundum based, pre-mixed floor-screed.

DESCRIPTION

MasterTop 450 PG is a pre-mixed, ready-to-use, pumpable, pourable, high-strength corundum based overlay for heavy loaded floors in indoor and outdoor applications. MasterTop 450 PG is suitable for levelling rough and uneven concrete floors in a thickness layer from 8 - 50 mm. Optimal layer thickness: 10 – 30 mm.

MasterTop 450 PG is formulated with sulphate resistant Portland cement, reinforced with PAN (polyacrylonitrile) fibers and mineral aggregates with high hardness, mixed with corundum. The product can be applied on fresh and existing concrete.

MasterTop 450 PG has a low chromate content (Cr-VI) ≤ 2 ppm on cement weight.

CHARACTERISTICS

MasterTop 450 PG is:

- An economical, ready-to-use cement and corundum based flooring overlay, that hardens free of bleeding at any consistency: from flowable to damp pack.
- The use of a high-yield mortar pump (screw pump) allows the prepared product to be pumped without segregation.
- A mortar that retains good workability for at least 30 minutes at 15 to 25°C.
- Resistant to solvents, mineral oils, petrol and alkaline surroundings.
- Thaw salt resistant.
- Available in natural (colours on request).
- Easy to apply and easy to clean.
- No danger for static charges.
- High abrasion resistance (4 times more than normal concrete floor).
- Suitable for wet areas.
- Rustproof.
- Reprofiling of horizontal surfaces as industrial inside and outside floors, etc.

FIELDS OF APPLICATION

Floors with high wear

- work floors and garages
- assembling halls in the car-industry
- Storage areas and traffic lanes in the steel industry
- Hangars
- Heavy duty storage rooms
- Printing works
- Dry / spray-installations in paper plants.
- Use for exposure classes XC4, XF4, XD3, XA3 according to EN 206-1 (Concrete standard).

REMARKS

Strength development MasterTop 450 PG


The strength of the overlay depends on:


- Amount of mixing water


- Temperature of the substrate
- Curing cycle
- Age of the hardened mortar
- Ambient temperature and humidity.
- The temperature of material, water and the ambient temperature should be in the range of +5°C to +25°C.
- Do not use water in an amount or at a temperature that will produce a consistency more than flowable or cause mixed mortar to bleed or segregate.
- Do not apply over concrete containing chlorides or aggregate contaminated with salt/salt water.
- Do not apply over concrete with > 3% entrained air.


APPLICATION PROCEDURE


Application on existing concrete


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1 Apply bonding slurry
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2 Mixing of the product
- 

3 Placement (pouring / pumping) of the material (wet in wet with the bonding slurry) and leveling (see note)
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4 Floating of MasterTop 450 PG followed by a first trowelling and a second/final trowelling/polishing
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5 Curing
- 

6 Sawing joints
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7 Application of joint sealant

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Application on fresh concrete

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Floating concrete

Steps 2 up to 7 are the same as described under "Application on existing concrete".

Note:

Apply by means of a hard brush bonding slurry of MasterTop 450 PG directly onto the substrate. The substrate should be damp but free of standing water. Brush the bonding slurry well into the surface. Do not allow the bonding slurry to dry.

Alternatively bonding slurry of MasterTop 500 may be applied. Consult your BASF-CC representative.

For detailed information on the application steps please consult the application manual.

CONSUMPTION

25 kg MasterTop 450 PG, mixed with 3,1 (2,7 – 3,3) litres of water produces approximately 12,5 litres mortar (0,0125 m³).

PACKING, STORAGE AND SHELF LIFE

MasterTop 450 PG is packaged in 25 kg moisture-resistant bags. Do not use the product if bag is damaged. Kept dry, cool and frost-free, MasterTop 450 PG can be stored for 12 months tightly closed original packages.

SAFETY AND PRECAUTIONS

MasterTop 450 PG contains cement which may cause irritation. Avoid contact with eyes and prolonged contact with skin. If contact occurs, wash thoroughly with water and call a doctor. Keep product out of reach of children. Consult the Material Safety Data Sheet of MasterTop 450 PG.

FIELD SERVICE


BASF-CC recommend that the user/applicator requests the services of the local representative for a prejob conference to carefully plan each step of the installation.

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CE MARK ACCORDING TO EN 13813

	
BASF Belgium Coordination Center Comm. V. Business Belux - Construction Chemicals Nijverheidsweg 89, B-3945 Ham 09 BE0080/01 EN 13813 CT-C60-F10-A3	
Cementitious screed material for use internally in buildings	
Reaction to fire	A1 _n
Release of corrosive substances	CT
Water permeability	NPD
Water vapour permeability	NPD
Compressive strength	C60
Flexural strength	F10
Wear resistance	AR0.5 A3
Sound insulation	NPD
Sound absorption	NPD
Thermal resistance	NPD
Chemical resistance	NPD

NATURAL

	
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COLOURED

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TECHNICAL PROPERTIES

Technical properties		
Physical form		ready to use powder
Color		cementgrey, colors see color-chart
pH		> 12
Granulometric grading		0 – 3,15 mm
Chemical resistance		medium to low
Curing		necessary
Filling joint		necessary
Water content/25 kg		3,1 l
Compressive strength (28 days)	EN 13982-2	> 60 N/mm ²
Flexural strengths (28 days)	EN 13982-2	10 N/mm ²
E-modulus 28 days	EN 13412	35 kN/mm ²
Adhesion to concrete	EN 13892-8 class > B 2,0	3,2 N/mm ² (concrete failure)
Abrasion resistance BCA	EN 13892-4	AR0,5 (max. 50 µm wear depth)
Abrasion resistance BOHME	EN 13892-3:2004	A3 (max. 3 cm ³ /50 cm ²)
Resistance to Fire		A1 _{fl}
Release of corrosive substances		CT (cementitious screeds)
Impact resistance (IR)	EN ISO 6272-1 (EN 1504-2) On concrete block MC 0,40 acc. EN 1766	Class II

Note: The data shown are based on controlled laboratory tests. Reasonable variations from the results shown can be expected. Field and laboratory tests should be controlled on the basis of the desired placing consistency rather than strictly on the water content.

BASF Belgium Coordination Center Comm. V. – Business Belux – Construction Chemicals

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