

MAHI
CHEMICALS

ISO : 9001 : 2015 Certified Company

Plot No : 50 & 61, RUDRA INDUSTRIAL ESTATE, B/H. N.K.-1 ESTATE,
BAKROL (BUJARANG) TA : DASCROI - AHMEDABAD - 382440

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Technical Data Sheet

Mahi PU Crete 4K

Polyurethane resin flooring system



DESCRIPTION

Mahi PU Crete 4K is a four-component polyurethane-concrete floor system. It has a hard wearing, abrasion resistant and smooth Matt coloured finish.

This flowable system is applied at a thickness of 4 – 6 and forms a smooth surface. The thickness is determined by the service and cleaning temperatures and the severity of traffic expected.

FEATURES & BENEFIT

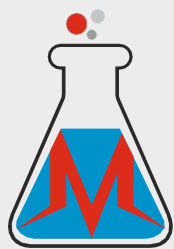
- ❖ Eco-Friendly
- ❖ Easily cleanable
- ❖ Solvent free Low odor
- ❖ Monolithic
- ❖ Fast Application
- ❖ Water based system with a high level of mechanical, chemical and water resistance.
- ❖ Suitable for application in the Food, Beverage, Bakeries, Dairies, Pharmaceuticals and other chemical industries.
- ❖ Excellent impact resistance at (4-6 mm) thickness. Can Handle heavy traffics
- ❖ Low maintenance
- ❖ Ideal for use in Green Building

APPLICATION & USES

Mahi PU Crete 4K is recommended for conditions requiring maximum chemical resistance, and where a smooth, even, and easy to clean surface is required. Specific applications include:

- ❖ Textile and film plants
- ❖ Food and beverage production
- ❖ Warehousing and storage
- ❖ Confectionery production
- ❖ Electronic component manufacture and assembly





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- ❖ Chemical plants
- ❖ Dairy and Milk Products
- ❖ Hotel's kitchens
- ❖ Freeze rooms and refrigerated stores
- ❖ Beverage plants
- ❖ Meat, poultry, and fish processing plants
- ❖ Pharmaceutical production

PROPERTIES

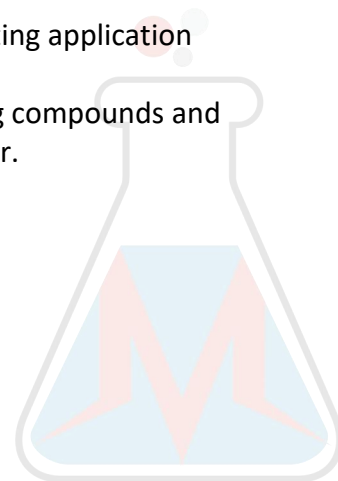
Pot Life @ 25°C	18 mins
Light traffic & Full traffic	24hrs & 48 hrs
Compressive strength (ASTM C 579)	52 MPa
Bond strength to concrete	(Elcomete pull of test) Exceeds Tensile strength of concrete
Hardness, Shore D	78-89
Flexural strength (ASTM C 580)	13 +/- 5% MPa
Tensile strength (ASTM C 307)	5.2 +/- 5% MPa
Abrasion resistance	Classified 'Special Duty' Under BS 8204 Part 2 : 2002(9)
Taber Abrasion Loss/1000 Cycles	41 mg (H22 wheels)
Slip resistance(Pendulum test)	Classified "Moderate" under BS EN 13036-4:2011
Impact resistance	Classified 'High Impact Resistance Under BS 8204: Part 1: 1999
Temperature resistance	Tolerant from -25° C up to 120°C
Mixing ratio(by weight)	Base: Hardener: Aggregate: Colorant 14.5 : 14.5 : 70 : 1

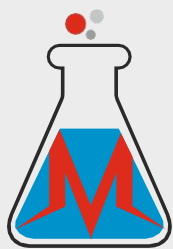
The values given above are average figures achieved in laboratory tests. Actual values obtained on site may show minor variations from those quoted.

DIRECTION FOR USE

A sound, clean and dry substrate is absolutely essential for successful coating application and ensuring maximum bonding between the substrate and coating system.

New concrete surface must be a minimum of 28 days old, free from curing compounds and sealers and have a moisture content less than 5 % prior to application of the primer.





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❖ Inspection & Surface Preparation

New Concrete surfaces:

Determine the general condition, soundness, and presence of contaminants, presence of moisture vapour emissions, and the best methods to prepare the concrete surface to receive F/C system.

(Hydrophobic contaminants can be identified by a simple water drop test. Other contaminants can be identified by pH).

The concrete or screed substrate must be hard, sound and free of dust and other barrier materials such as paint, lime coatings, plaster, curing agents, adhesive residues etc. that will inhibit adhesion to the substrate.

Acids and alkalies can be removed by neutralizing to form a water-soluble salt and then high-pressure water cleaning).

Old Concrete surfaces:- Remove bond-inhibiting materials such as oils, grease, wax, fatty acids, and other contaminants. (This can be accomplished by the use of detergent scrubbing, low pressure water cleaning, steam cleaning, or chemical cleaning. Acids and alkalis can be removed by neutralizing to form a water soluble salt and then high pressure water cleaning). Contaminated concrete surfaces should be mechanically prepared, either by grinding or contained shot blasting equipment or similar, and be vacuumed clean prior to applying Mahi PU Crete 4K.

Hydrophobic contaminants can be identified by a simple water drop test. Other contaminants can be identified by pH.

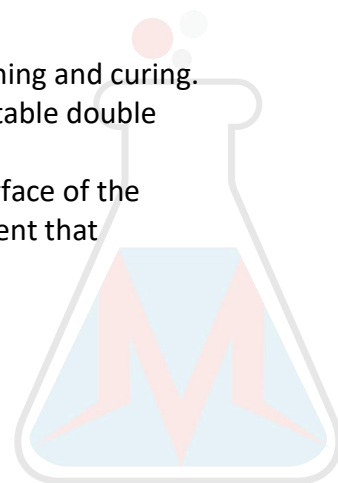
❖ PRIMING

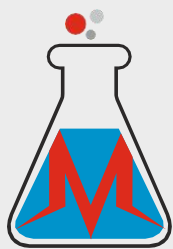
- Use over a concrete surface, Mahi PU Crete 4K is recommended depending on substrate condition to ensure maximum product performance.
- Scratch coat: Mix base, hardener and aggregates of Apco- or PU CRETE 4K in the ratio of 14.5:14.5:70 :1 by weight, stir well with high-speed electric paddle until uniform mass is formed. Apply the scratch coat by means of putty knife or - at trowel.
- Freshly applied primer cum scratch should be protected from damp, condensation and water for at least 24 hours.

❖ GROOVE OPENING

Retaining grooves must be prepared to prevent curling of the screed during hardening and curing.

- Open grooves twice as wide and twice as deep as the screed thickness. Use a suitable double blade saw with connection to an industrial vacuum cleaner.
- Retaining grooves must be located in the perimeter and throughout horizontal surface of the application area and also around columns, plinths, drains etc. or any singular element that represents a discontinuity in the screed.





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❖ FLOOR JOINTS

All cracks and construction joints present, based on the depth of the crack, should be led with Mahi PU Crete after primer cum scratch coat application.

- The expansion joints should not be over coated with the coating and to be addressed with suitable material.

❖ MIXING

Mahi PU Crete 4K shall be mixed and applied only by specialist flooring contractors who have been trained in the correct application procedures. Detailed method of statement is available on request

❖ CONSUMPTION

6 kg +/-5% per sq.mtr/ @ 3 mm DFT

8 kg +/-5% per sq.mtr/ @ 4 mm DFT

❖ Shelf Life

Mahi PU Crete 4K has a shelf life of 12 months if kept in warehouse conditions at 30°C in the original, unopened pack.

❖ STORAGE CONDITIONS

Store in dry conditions between 5oC and 30oC, away from sources of heat and naked flames, in the original, unopened packs. If stored at high temperatures the shelf life will be reduced.

❖ DRYING TIME

Surface Dry: 4.5 hours

Hard Dry: 18 hours

Full Cure: 7 days

❖ CURRING

At 30oC, foot traffic access in 8 hours, vehicular traffic in 16 hours.

At 20oC, foot traffic access in 12 hours, vehicular traffic in 24 hours.

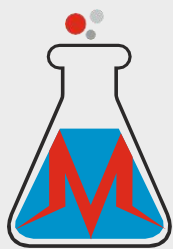
Full cure at 28 days.

❖ COLOR

Mahi PU Crete 4K is available in red, Grey, Green, Blue and yellow (standard colors).

Other colors may be available to special order, subject to quantity and technical requirements.





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❖ LIMITATION

This product is for professional use only. The applicators and operators shall be trained, experienced and have the capability and equipment to mix/stir and apply the coatings correctly and according to company's technical documentation.

Mahi PU Crete 4K is not color fast and may change color over Time (exhibits a yellowing effect). Color change depends on the UV light and heat levels present and hence the rate of change cannot be predicted.

This guideline is given based on the current knowledge of the product. Any suggested deviation to suit the site conditions shall be forwarded to the responsible company representative for approval before commencing the work.

❖ HANDLING AND SAFETY FEATURES

- Keep out of reach of children and away from eatables
- Store the container with the lid tightly closed in an upright position, in a cool, dry place
- May be harmful if swallowed. In case of ingestion seek immediate medical attention
- Wear eye protection during application. In case of contact with eyes, rinse immediately with plenty of water and if required seek medical advice

As far as possible, direct contact of resin and hardener with the skin should be avoided as they might cause irritant on sensitive skins. It is advisable to wash off immediately in case of skin contact. Special barrier creams and cleansing creams are available commercially as additional safeguards.

Please refer MSDS for detail safety instructions.

DISCLAIMER

The manufacturer reserves the right to change the specifications. MAHI CHEMICAL products are guaranteed against material manufactured and are sold subject to the company's Terms and Conditions of Sale. Whilst we endeavour to ensure that advice, specifications, recommendations, and information given is correct, we cannot have control over how our products are applied and will not accept liability, directly or indirectly, arising from application of our materials.

This information contained in this sheet is accurate to the best of our knowledge no liability can be accepted in respect of such information and no warranty or conditions are intended in respect of the products described, as the conditions of application are beyond our control.

