

MASTERTOP™ 1210 PLUS

Epoxy based, tough industrial floor coating for medium duty traffic

Description

MASTERTOP 1210 PLUS is a seamless floor coating based on advanced solvent free epoxy resin system. The cured coating provides a glossy, easily cleaned and hygienic surface with excellent resistance to mechanical wear and chemical attack at thickness between 0.5 mm – 1.0 mm.

The floor coating is available in a range of eight standard colours and in custom colours with prior agreement.

Uses

MASTERTOP 1210 PLUS is recommended for areas where abrasion due to rubber wheeled traffic or chemical spillage could pose risks of floor erosion and help breed bacterial colonies and where, a high level of aesthetics is essential. Application areas include:

- Clean rooms in Pharmaceuticals & other industries
- Packing and storage areas of sugar, fertilizers and pharmaceuticals plants
- Automobile servicing and assembly areas
- Aircraft maintenance hangars
- Refurbishment to existing epoxy flooring

Advantages

- Good resistance to a wide range of chemicals.
- Durable, even under exposure to chemicals.
- Pore free, seamless film - hygienic.
- Easy to clean.
- Solvent free - no harmful vapours.
- Available in several pleasant colours.
- Permits colour-coding floor areas.

Typical Properties

Mixed density	:	1.56 kg/litre
Pot life	:	45 mins at 25°C
	:	15 mins at 40°C
Setting Time/ Foot traffic	:	15 hours at 25°C
Vehicular traffic	:	36 hours at 25°C
Maximum service temperature	:	60°C
Compressive strength, (ASTM C579)	:	28 MPa at 1 day
	:	50 MPa at 7 days
Flexural strength (BS 6319 part 3)	:	22 MPa at 7 days
Tensile strength (BS 6319 part 7)	:	13 MPa at 7 days
Abrasion Resistance H22 wheel	:	< 160 mg
(ASTM D4060,1000 cycles) CS17 wheel	:	< 20 mg
Hardness, Shore D (ASTM D 2240)	:	> 80
Adhesive bond strength to concrete	:	> 2 MPa
(ASTM D4541)	:	(concrete failure)

Specification Clause

The thin self-smoothing coating shall be MASTERTOP 1210 PLUS, solvent-less, 4-part system consisting of graded fillers to provide the toughness. The system shall consist of MASTERTOP 1200 PLUS, solvent free primer and top coat of MASTERTOP 1210 PLUS. Overall the system shall be able to offer good abrasion resistance; shall not exceeding wear loss of 160 mg when subjected to H22 test wheel on Taber apparatus as per ASTM C501 in 1000 cycles. Also product shall have compressive strength minimum of 28 MPa at 24 hours and 50 MPa at 7 days. The system shall offer hardness in excess of 80 on Shore D scale as per ASTM D2240.

Directions for use

The floor receiving MASTERTOP 1210 PLUS must be sound, dry, fine-grained and load bearing, free of laitance, loose and brittle particles and substances which impair adhesion such as oil, grease, rubber skid marks, paint or other contaminants. The bond strength of the substrate must be at least 1.5 MPa. Ensure that the compressive strength of floor concrete is at least 25 MPa and that floor slabs directly in contact with the ground have a proper vapour barrier installed and the moisture content of substrate shall not be higher than 4% through out.

Temperature Requirements

- Substrate temperatures: 15°C – 35°C
- Material temperatures: 15°C – 30°C

Very low or very hot temperatures will make application more difficult and careful consideration should be given to storage of materials. In the cold weather conditions, pre-condition materials by keeping it in a heated room. In hot weather conditions, some form of air-conditioned storage is required. Pre-conditioned materials at 20-25°C will reduce the possibilities of flash/slow setting and other defects.

Surface preparation

Remove oil, grease, mould release agent and wax contaminants by scrubbing with industrial grade detergent or degreasing compounds followed by mechanical cleaning. Remove cement laitance and weak concrete by shot blasting or grinding followed by vacuum cleaning.

Repair damaged or pitted areas using CONCRESEIVE ERL or using CONCRESEIVE 2200i.

Priming

It is essential to seal the concrete surface prior to the application of MASTERTOP 1210 PLUS. Apply MASTERTOP 1200 PLUS PRIMER at 5 – 8 m²/kg depending on the quality of substrate ideally using a stiff brush, forcing the primer into the pores by a rotary scrubbing movement. If after drying, the surface appears patchy due to high absorption, recoat the primer. Allow the primer to dry before commencing top coat application of MASTERTOP 1210 PLUS.

Mixing

Mix mechanically, using a slow-speed drilling machine fitted with appropriate wing paddle. Add colour paste completely to the Base in its container and mix well. Pour the Hardener into the Base container and mix for a minute. Transfer the mixed resin system to a pail and keeping the mixer running add the filler completely to obtain a homogeneously mixed MASTERTOP 1210 PLUS with a uniform colour obtained. Keep the mixing time same for all batches to ensure a uniform colour when the product is applied.

Placing

MASTERTOP 1210 PLUS can be applied to a thickness of 0.5mm to 1.0mm, onto a smooth and flat substrate to a self-smoothing finish.

Pour the mixed MASTERTOP 1210 PLUS over the substrate and spread with a notched trowel or a pin screed to the desired thickness (0.5 mm to 1.0 mm). Roller the coating with spiked roller to expel air and achieve a smooth finish. Continue rolling until all air is released but well before the material starts to stiffen.

Curing

MASTERTOP 1210 PLUS is self-curing. Protect the applied area from dust, spillage, insects and pedestrian or vehicular traffic for at least 24hrs.

Coverage

A 10kg unit of MASTERTOP 1210 PLUS yields 6.41 litres of mixed material.

On concrete surface: Each pack is sufficient for 10m² to achieve average thickness of 500 microns; this is considering the wastage to even out the rough profile of the concrete substrate.

On existing epoxy flooring surface: Each pack is sufficient for 12.5 m² to achieve average thickness of 500 microns

Packaging

MASTERTOP 1210 PLUS is supplied in 10kg pack consisting of Base, Hardener, Aggregates and Colour pack.

Storage and Shelf life

Store under cover, out of direct sunlight and protect from extremes of temperature. In tropical climates the product must be stored in an air-conditioned environment.

Shelf life is 12 months when stored as above.

Failure to comply with the recommended storage conditions may result in premature deterioration of the product or packaging. For specific storage advice please consult BASF's Technical Services Department.

Safety precautions

As with all chemical products, care should be taken during use and storage to avoid contact with eyes, mouth, skin and foodstuffs (which can also be tainted with vapour until product fully cured or dried). Treat splashes to eyes and skin immediately. If accidentally ingested, seek immediate medical attention. Keep away from children and animals. Reseal containers after use. Do not reuse containers for storage of consumable item. For further information refer to the material safety data sheet. MSDS available on demand or on BASF construction chemicals web site.

Note

All BASF Technical Data Sheets are updated on regular basis; it is the user's responsibility, to obtain the most recent issue.

Field services where provided, does not constitute supervisory responsibility, for additional information contact your local BASF representative.

Disclaimer

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