

# MASTERTOP™ 1240 PLUS

## Epoxy resin based floor topping for medium to heavy duty traffic

### Description

MASTERTOP 1240 PLUS is a coloured industrial flooring mortar screed based on advanced solvent free epoxy resin system and selected graded aggregates. The mixed mortar can easily be laid by trowel to a joint less, abrasion and chemical resistant topping. Where situation demands, the aggregate content can be reduced to yield a self sealing mortar.

### Uses

MASTERTOP 1240 PLUS is recommended for industrial floors, where excellent mechanical properties and chemical resistance are essential. It is ideal for:

- Manufacturing and storage areas.
- Areas subject to traffic and loading.
- Wet process areas.
- Re-profiling worn and damaged floors.
- Textile production – bleaching and dyeing – areas.
- Metal processing and engineering plants.

### Advantages

- Resistant to wide range of chemicals, abrasion and impact.
- Slip resistant – safe in wet areas
- Impervious (at lower Aggregate content) – prevents staining.
- Pre proportioned, consistent.
- Wide colour range

### Typical Properties

Mixed density	: 2.00 kg/litre
Pot Life	: 40 mins at 25°C 20 mins at 40°C
Setting time/ foot traffic	: 10 hours at 25°C
Vehicular traffic	: 36 hours at 25°C
Maximum service temperature	: 60°C
Compressive strength	: 35 MPa at 1 day (ASTM C579) : 60 MPa at 7 days
Flexural strength (BS 6319 part 3)	: 22 MPa at 7 days
Tensile strength (BS 6319 part 7)	: 10 MPa at 7 days
Abrasion Resistance H22 wheel	: < 0.5 gm (ASTM C501, 1000 cycle)
Hardness, Shore D (ASTM D 2240)	: > 80
Adhesive bond strength to concrete (ASTM D4541)	: > 2 MPa (concrete failure)

### Specification Clause:

The trowel finished epoxy topping shall be MASTERTOP 1240 PLUS, 100% solid, 4-part system consisting of

specially graded fillers to provide the toughness. The system shall consist of MASTERTOP 1200 PLUS, solvent free primer and topping of MASTERTOP 1240 PLUS. Overall the system shall be able to offer good abrasion resistance; shall not exceeding wear loss of 0.5 mg/cycle when subjected to H22 test wheel on Taber apparatus as per ASTM C501. Also product shall have compressive strength minimum of 35 MPa at 24 hours, 60 MPa at 7 days and flexural strength of 20 MPa at 7 days. The system shall offer hardness in excess of 80 on Shore D scale as per ASTM D 2240.

### Directions for use

The floor receiving MASTERTOP 1240 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 25MPa 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 5% 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 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, scarifying or grinding followed by vacuum cleaning.

Repair damaged or deeply pitted areas using MASTERTOP 1240 PLUS or using CONCRESEIVE ERL.

Use aluminum channel or wooden beading of suitable height as forms along the borders to help finish the topping to the desired thickness.

#### Priming

Use MASTERTOP 1200 PLUS PRIMER. Mix Base for one minute until a homogenous mix is obtained. Add Hardener completely to the Base container and mix using an electric drill fitted with a wing paddle or a paint type stirrer.

Apply the mixed primer onto the prepared surface at 4 – 6 m<sup>2</sup>/kg, in a continuous film. Recoat if the primer appears matt or dry in patches with in 30 – 40 minutes.

#### Body Coat

#### Mixing

Use either a pan type mixer or a heavy-duty drilling machine fitted with a helical paddle to mix MASTERTOP 1240 PLUS. Add the entire colour pack to the Base and mix until the pigment is evenly dispersed. Add the Hardener to the pigmented Base and mix for 1-2 minutes. Transfer the mixture to a clean pail and add the Aggregate component while continuing to mix until a homogenous and uniformly coloured mix is obtained. Maintain the same mixing time for every batch to ensure colour uniformity. If a totally sealed surface is desired, reduce the Aggregate component by up to 10% or apply a sealer coat.

#### Placing

Apply the body coat on to the primer when it is still wet or tacky. If the primer has dried, recoat within 24hr. Apply the mixed material by trowel and screed bar to minimum 3mm thickness. Mixed material can also be spread on the floor using a screed box. Strike off excess mortar and level with a straight edge. Trowel to the desired finish. A blotchy surface appearance indicates over- trowelling.

#### Sealer Coat

Sealer coat is an optional coat to seal the surface totally. Use MASTERTOP 1120T or MASTERTOP 1210 PLUS (refer separate data sheets) as sealer coat. Apply the sealer coat at least 10hr after the Body coat and preferably within 24hr. After a long interval, surface preparation could become more time consuming.

#### Curing

MASTERTOP 1240 PLUS is self-curing. Under normal circumstances initial curing will take place overnight. The topping will be fully cured in 7 days.

#### Coverage

The consumption of both the primer and body coat depends on floor profile, thickness, filler content and wastage.

Each 15kg pack of MASTERTOP 1240 PLUS on mixing yields 7.5L and shall cover 2.5 m<sup>2</sup> area at 3mm thickness.

#### Packaging

MASTERTOP 1240 PLUS is supplied in 15kg packs consisting of Base, Colour pack, Hardener and Aggregate.

#### Components

Base	1.04 Kg
Hardener	0.54 Kg
Aggregate	13.07 Kg
Colour pack	0.35 Kg

#### 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

Whilst any information contained herein is true, accurate and represents our best knowledge and experience, no warranty is given or implied with any recommendations made by us, our representatives or distributors, as the conditions of use and the competence of any labour involved in the application are beyond our control.

TDS Ref. no. : MTPx1240/05/0711

#### BASF India Limited

#### Construction Chemicals Division

Plot No.37, Chandivali Farm Road, Chandivali ,Andheri(East)

Mumbai – 400072 India

Tel: +91 22 28580200, Fax: +91 22 28478381

e-mail: basfcc@vsnl.net [www.basf-cc.co.in](http://www.basf-cc.co.in)

