

# MASTERTOP<sup>®</sup> 1240

Epoxy based high strength mortar Flooring System

## DESCRIPTION

**MASTERTOP 1240** is a coloured industrial flooring mortar screed based on an advanced solvent-free epoxy resin system and selected graded aggregates. The mixed mortar is screedable and can be laid to provide a joint-less topping. Where the situation demands, the aggregate content can be reduced to yield a semi self-smoothing and self-sealing mortar.

**MASTERTOP 1240** is one of the floors available in the Polykit system. The Polykit system consists of a limited number of standardised components, which allow production of a wide range of epoxy resin floors for different applications in a variety of colours.

## FIELDS OF APPLICATION

**MASTERTOP 1240** is recommended for floors where a high level of resistance to abrasion is required. It is ideal for:

- chemical and pharmaceutical industries
- food and beverage industry
- areas subjected to heavy wear and tear
- production and packaging areas
- wet process areas
- manufacturing and storage areas
- laboratories

## FEATURES AND BENEFITS

<b>Chemical, abrasion and impact resistant</b>	Withstands chemical and mechanical attack. Lower maintenance cost.
<b>Non-slip</b>	Safe working areas.
<b>Wide colour range</b>	Attractive floors. Pleasant working environment.

## TYPICAL PERFORMANCE DATA

(7 days cure @ 20°C using A4,B4,X1 and F1a)

Compressive (DIN 1164)	65 N/mm <sup>2</sup>
Flexural strength (DIN 1048)	35 N/mm <sup>2</sup>
Bond strength (DIN ISO 4624)	> 1.5 N/mm <sup>2</sup>
Abrasion resistance (DIN ISO 53154)	98 mg
Modulus of elasticity (DIN 1048)	9000 N/mm <sup>2</sup>
Coeff. of linear expansion (DIN 53752)	: 8 x 10 <sup>-5</sup> K <sup>-1</sup>
Service Temperature	: -20°C to 60°C
Application Temperature	: Minimum 10°C Maximum 35°C

## PROPERTIES

### a. Components

	Supply form	Colour	Density kg/L
A4	liquid	amber	1.1
B4	liquid	amber	1.0
MASTERTOP X1	paste	coloured	2.0
Filler F15	solid	off-white	2.6

### b. Mixed systems

	Components	Mix ratio by weight
Primer	A4:B4	5.4:3
Body Coat	A4:B4:X1:F15	5.4:3:0.6:3 to 4 x 22.7
Sealer	A4:B4:X1:F16	5.4:3:0.6:4.5 to 6.5
Top Coat	Choice of MASTERTOP 1080; MASTERTOP BC338; MASTERTOP 1110 or consult BASF Construction Chemicals sales representatives	

### Pot-life (minutes)

	@ 10°C	@ 20°C	@ 30°C
Primer (A4/B4)	90	45	20
Body Coat	100	90	45
Sealer (A4/B4)	90	45	20

### Curing time (days)

	@ 10°C	@ 20°C	@ 30°C
Primer (A4/B4)	5	2	1
Body Coat	7	3	2

\* Part A and Part B mixed

## APPLICATION

### Surface Preparation

The compressive strength of the substrate shall not be less than 30 N/mm<sup>2</sup>. The concrete slab in contact with the ground must have a vapour barrier installed in compliance with DIN 18195 or equivalent, or be primed with MASTERTOP P 601

The moisture content of the substrate shall not be higher than 8% throughout. The temperature of the substrate must be at least 3°C above the current dew point temperature.

Correct substrate preparation is critical for optimum performance. Surfaces must be structurally sound, clean, and free from loose particles, oil, grease, and all other contaminants. Remove oil, grease and wax contaminants by scrubbing with industrial grade detergent or degreasing compounds followed by mechanical cleaning. Cement laitance, loose particles, mould release agents, curing membranes and other

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contaminants must be removed from the surface by shot blasting, Blastrac<sup>®</sup>, scarifying or grit-blasting followed by vacuum cleaning.

After pre-treatment of the substrate, the bond strength of the substrate must be at least 1.5 N/mm<sup>2</sup>. For filling up surface irregularities such as blowholes, cracks, honeycombs, etc., please consult BASF Construction Chemicals sales representative.

Protect walls and columns against resin splashes using masking tape and polythene sheeting.

## PRIMER

### Mixing

Use a low electric drill fitted with a paint mixer or a wing type paddle. Mix one unit of A4 resin with one unit of B4 hardener and mix for at least 3 minutes or until the mix is uniform in colour and free of streaks.

### Placing

Depending on the substrate condition, apply 0.2 to 0.3 kg/m<sup>2</sup> of the primer, using a roller or squeegee. MASTERTOP X1 may be added to help visually in locating areas where primers are not applied properly.

## BODY COAT

### Mixing

Mix one unit of A4 resin with one unit of B4 hardener and a pack of MASTERTOP X1 in a forced action mixer and mix for at least 3 minutes until the mix is uniform and free of streaks. Continue to mix slowly adding 3 to 4 bags of F15. Mix for a further 3 minutes until a uniform mass and colour is obtained.

### Placing

The Body Coat is applied wet on wet onto the still tacky primer using a normal steel / wooden trowel. The mortar is screeded approximately 2 mm higher than the final compacted thickness using a metal screed-bar and thickness templates. For larger areas a screed box is recommended. Compacting takes place with a steel/PVC trowel or a power float for large areas.

## SEALER

### Mixing

Use a low speed electric drill fitted with a paint mixer or a wing type paddle. Mix one unit of A4 resin with one pack of MASTERTOP X1 until the colour is uniform then add one unit of B4 hardener, add 4.5 to 6.5 kg of F16 and mix for at least 3 minutes or until the mix is uniform and free of streaks.

### Placing

Immediately after mixing, pour the material onto the Body Coat. Spread the mixed material using a squeegee. The amount of material applied determines the smoothness of the finish. Back roll with short hair mohair roller. Depending on the compactness of the mortar, a second sealer coat may be required in order to obtain a completely sealed surface. This is of particular

importance for floors that are continuously wet.

## TOP COAT

**Note:** For maximum abrasion and UV resistance with a variable glossy to matt finish, use MASTERTOP TC 461. For a non-slip finish, use MASTERTOP 1080. For other systems, such as MASTERTOP 1110 and MASTERTOP TC 435, please consult BASF Construction Chemicals sales representative.

Following application of the **MASTERTOP 1240**, protect coated area for at least 24 hours after laying from spillage, dust, insects, small animals, traffic, rain, moisture, etc.

## CLEANING

Clean tools and equipment first with paper towels or rags, then wipe using a solvent such as acetone or methyl-iso-butyl ketone before the resin system hardens.

## ESTIMATING DATA

For thickness of 4 to 8 mm

System	Product	kg/m <sup>2</sup>	Thickness mm
Primer	A4:B4	0.2–0.3	0.1–0.2
Body Coat	A4:B4:X1:F15	9 to 18	4–8
Sealer	A4:B4:X1:F16	0.4–0.6	0.2–0.3
Top Coat	MASTERTOP 1080, MASTERTOP TC 435 MASTERTOP 1110 MASTERTOP TC461	0.4–0.6	Refer to individual Product Data Sheet

## PACKAGING

A4 Resin	5.4 kg/pail
B4 Hardener	3.0 kg/can
X1 colour	0.6 kg/pack
Filler F15	22.7 kg/bag
Filler F16	25.0 kg/bag

## SHELF LIFE

All components in **MASTERTOP 1240** can be kept for 12 months from date of manufacture, if stored in original unopened packaging, in a dry enclosed place without exposing to direct sunlight and at temperatures between 15 to 35°C.

## PRECAUTIONS

For detailed Health, Safety and Environmental Recommendations, please consult and follow all the instructions on the product Material Safety Data Sheet.

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## **STATEMENT OF RESPONSIBILITY**

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