

# MASTERTOP<sup>®</sup> 1230

Seamless, self smoothing, epoxy based resin flooring system

## DESCRIPTION

**MASTERTOP 1230** is a seamless, self-smoothing, flooring system based on advanced solvent-free epoxy system and selected graded fillers. The cured floor exhibits excellent resistance to abrasion and finishes to a smooth, impervious surface that can be easily maintained in a hygienic condition.

**MASTERTOP 1230** 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 1230** is recommended for floors where a high level of aesthetics is essential and bacterial growth or chemical spillage raises the risk of an unhygienic environment or floor erosion. It is ideal for floors in:

- pharmaceutical
- cosmetic industries
- food industries
- hospitals
- other medical facilities
- laboratories
- clean rooms
- TV studios
- Sterile areas

## FEATURES AND BENEFITS

<b>High resistance to chemical attack</b>	Durable even in chemically aggressive areas.
<b>High abrasion resistance</b>	Lower maintenance cost.
<b>Easily cleaned</b>	Allows floor surface to be maintained in a hygienic state.
<b>High level of aesthetics</b>	Enhances the beauty and appeal of the work place.
<b>Smooth and seamless</b>	Reduces formation of bacterial growth and accumulation of dirt.

## TYPICAL PERFORMANCE DATA

7 days cure @ 20°C using A4,B4,X1 and F1A	
Compressive strength (ASTM D695:08)	: > 60 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)	: 9,000 N/mm <sup>2</sup>
Coeff. of linear expansion (DIN 53752)	: $8 \times 10^{-5} \text{ K}^{-1}$
Service Temperature	: -20 to 60°C
Application Temperature	: Minimum 10°C Maximum 30°C

## PROPERTIES

### a. Components

	Supply form	Colour	Density kg/L
A4	liquid	amber	1.1
B4	liquid	amber	1.0
MASTERTOP P 601 Part A	liquid	amber	1.10
MASTERTOP P 601 Part B	liquid	amber	1.05
MASTERTOP X1	paste	coloured	2.0
Filler F1A	solid	white	2.6

### b. Mixed systems

	Components	Mix ratio by weight
Primer	MASTERTOP P 601 A: B	100:27
Scratch primer	A4:B4:X1:F1A	5.4:3:0.6:15
Body coat	A4:B4:X1:F1A	5.4:3:0.6:12

### Pot-life (minutes)

	@ 10°C	@ 20°C	@ 30°C
Body coat	120	60	20

### Curing time (days)

	@ 10°C	@ 20°C	@ 30°C
Body coat	7	3	2

### Maximum permissible relative humidity

	@ 10°C	at >23°C
All components	75%	90%

## 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 (Test using CM equipment). The temperature of the substrate must be at least 3°C above the current dew point temperature.

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Correct substrate preparation is critical for optimum performance. 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 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> (check with an approved pull-off tester at load rate 100 N/s). Fill 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 speed electric drill fitted with a paint mixer or a wing type paddle. Mix one unit of MASTERTOP P 601 Part A with one unit of MASTERTOP P 601 Part B and mix for at least 3 minutes or until the mix is homogeneous and free of streaks.

### Placing

Immediately after mixing, pour the material onto the substrate and spread the mixed material using a squeegee or paint roller. The primary purpose of this primer coat is to seal the substrate completely and avoid air-bubbles formation in the placement of the body coat. When the primer is still wet, broadcast with F1A.

On very porous substrates, a second primer sealer coat may be required. If in doubt, apply a sample patch of body coat.

## BODY COAT

### Mixing

Use a low speed (300 rpm) electric drill fitted with a paint mixer or a wing type paddle. Mix one unit of A4 resin with a cartridge of MASTERTOP X1 until the colour is uniform then add one unit of B4 hardener and mix for at least 3 minutes or until the mix is uniform and free of streaks. Continue to mix and add one bag of F1A filler until a homogeneous and uniform mix is obtained.

### Placing

Depending on the substrate condition, apply 3.4 to 5.1 kg/m<sup>2</sup> of the mix; pour out the whole mix at once into pours being approximately 200 to 300 mm wide running parallel to the work direction. Distribute and level the material with a notched trowel of the following notch size width / height / separation: 3/5/10 mm. Allow the placed material to rest for 2 to 5 minutes; then de-aerate with

a spike roller. Temperature will affect the cure mechanism and this will also affect the surface finish.

**Note:** For maximum abrasion and UV resistance with matt finish, use MASTERTOP TC 441 (Conipur 41).

For maximum abrasion and UV resistance, with infinitely variable glossy to matt finish, use MASTERTOP TC 461 (Conipur 61).

For decorative finish using colour flakes and following top coats, please refer to your local BASF Construction Chemicals representative.

Following the application of the **MASTERTOP 1230**, 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 2.0 to 3.0 mm

System	Product	kg/m <sup>2</sup>	Thickness mm
Primer	MASTERTOP P 601 A:B	0.3 – 0.5	0.3 – 0.4
Scratch Primer	A4:B4:X1:F1A	0.4 – 0.5	0.3 – 0.4
Body coat	A4:B4:X1:F1A	3.4 – 5.1	2.0 – 3.0

For decorative top coat using colour flakes, please refer to your local BASF Construction Chemicals representative.

## PACKAGING

A4 Resin	5.4 kg/pail
B4 Hardener	3.0 kg/can
MASTERTOP P 601	30 kg/set
MASTERTOP X1	0.6 kg/cartridge
Filler F1A	12.0 kg/bag

## SHELF LIFE

All components in **MASTERTOP 1230** 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.

## STATEMENT OF RESPONSIBILITY

The technical information and application advice given in this **BASF Construction Chemicals** publication are based on the present state of our best scientific and practical knowledge. As the information herein is of a general nature, no assumption can be made as to a product's suitability for a particular use or application and no warranty as to its accuracy, reliability or completeness either expressed or implied is given other than those required by law. The user is responsible for checking the suitability of products for their intended use.

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