



The Chemical Company

MASTERTOP[®] 1220

Epoxy based coloured slip resistant seamless flooring system

DESCRIPTION

MASTERTOP 1220 is a slip resistant, seamless, industrial flooring system based on an advanced solvent free epoxy resin system and selected graded aggregates. The degree of slip resistance can be adjusted to suit a wide variety of conditions and cleaning requirements. The cured floor provides excellent resistance to both chemical and mechanical attack.

RECOMMENDED FOR

- Safety Non Slip internally & externally
- Food and beverage industry
- Chemical, cosmetics and pharmaceutical industries
- General production and packing areas
- Commercial and industrial kitchens
- Wet process and washdown areas
- Automotive, aircraft and engineering facilities

FEATURES AND BENEFITS

- **Pre-packaged and proportioned**
- **Wide colour range**
- **Excellent slip resistance and durability**
- **High resistance to chemical & mechanical attack**
- **Flat, trowel mark free surface**
- **Seamless and jointless**
- **Hygienic surface**

PERFORMANCE DATA (23 C TYPICAL)

Compressive Strength (DIN 1164)	(24 hrs) 90MPa
Flexural Strength (DIN 1048)	30MPa
Bond Strength (ZTV.SIB 87)	>2.5MPa*
Abrasion Resistance (ASTM C779-A)	0.9mm @ 90min
Modulus of Elasticity (SIA 162/1)	16GPa
Coefficient of linear thermal expansion	5 x 10 ⁻⁵ /°C
Temperature Resistance	-20°C to +60°C
Full Cure	7 days 23°C

*Concrete Failure

To confirm suitable chemical resistance discuss with BASF Construction Chemicals technical representative. Pay particular attention to exposure, cleaning cycles and temperature of both exposure and cleaning regimes.

SPECIFICATIONS

Supply Form	4 pack system incl. colour pack
Colours	Refer to colour card
Specific Gravity	1.8kg/L (total)
Application Temperature (Ambient and Substrate)	Minimum 8°C / Maximum 35°C

APPLICATION DIRECTIONS

Surface Preparation

The compressive strength of the substrate shall not be less than 25MPa . 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 **CONCRESE 2525**.

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.

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 contaminants must be removed from the surface by shot blasting, Blastrac[®], 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/mm². For filling up surface irregularities such as blowholes, cracks, honeycombs, etc., please consult BASF sales representative. Protect walls and columns against resin splashes using masking tape and plastic sheeting.

Mixing - For a project it is advisable to ensure that all **MASTERTOP X1** Colour Packs are the same batch number to minimise risk of colour variation.

All mixing should be done using a slow speed drill (Max. rpm. 600) and a spiral mixing paddle. Premix **MASTERTOP A1** resin, add **MASTERTOP X1** colour pack, thoroughly mix to ensure the pigment is uniformly dispersed. Add the **MASTERTOP B1/(B2 rapid)** hardener and continue to mix, slowly add the **MASTERTOP F1** filler and mix for a further 3 minutes with occasional scraping of the side of container. Ensure the final mix is lump free, homogeneous and even in colour. Mixing of large volumes (multiples of the above kits) may be done in a forced action mixer. Ensure all containers are completely empty before disposal.

Priming - Floors with normal levels of absorbency do not need to be primed. It is advisable where the floor is damp, porous, very dense or where the occurrence of pinholes is unacceptable, to prime the floor prior to placing the **MASTERTOP 1220**. Use **CONCRESE 2525** at 5m² per litre typical coverage rate. If there is to be a gap between primer application and **MASTERTOP 1220** installation of more than 18 hours or there is possibility of moisture contact with the floor, lightly sand seed the **CONCRESE 2525**.

Application - The mixed material should be applied as a body coat on to the prepared and/ or primed floor using a notched or flat trowel to a thickness not less than 1.5mm. The surface should be spike-rolled to remove the entrapped air. Whilst the surface is still wet, broadcast with **MASTERTOP F5 Filler** to excess. The next day the unbound sand is removed using a scraper initially and then brushed and vacuumed.



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The top coat is roller applied on to the broadcast surface or applied by squeegee or flat trowel. Roller application will provide a high degree of slip resistance (subject to the length of the nap). Trowel or squeegee will lessen the slip resistance but increase the ease of cleaning. The top coat can comprise of **MASTERTOP 1080** or **MASTERTOP A1, B1 & X1** base coat binder.

Note: It is recommended that a small trial area is undertaken at the start of the works for approval of surface texture.

The final thickness of the floor will be approximately 3mm, where thicknesses greater than this are required then two applications of the "base coat" may be used.

POT LIFE

Pot life will vary according to the quantity mixed, ambient and substrate temperature. The base coat will have a pot life of approximately 60 minutes at 23°C using **MASTERTOP B1** hardener (20 mins. using **MASTERTOP B2**). The top coat will have a pot life of 45 minutes at 23°C.

ESTIMATING DATA

A1 Resin + **B1** Hardener + **X1** colour pack = 9.5 litres
+ **F1** Filler Sand = 15.5 litres
Thickness for base coat is 1.5mm therefore kit covers 10.33m².

F5 Broad cast sand is 4kg (2.45 L dry) per m².
Top coat coverage is 4-2m² per litre if applied by roller or 2.5-1m² per litre if applied by flat trowel or squeegee. Coverage rate will be similar for **MASTERTOP 1080**, and **MASTERTOP A1, B1, and X1**.

CURING

Waiting times between **CONCRETE 2525** and **MASTERTOP 1220** should not be less than 8 hours and not more than 36 hours. Not less than 8 hours should be allowed between the body coat and the top coat of **MASTERTOP 1220**. No theoretical maximum time exists due to the resultant profile, however it is advisable to recoat within 24 hours to limit intercoat contamination, this is also true of the waiting time between the body coat and the top coat. **MASTERTOP 1220** should be protected from traffic and spillage for at least 24 hours. Full chemical and mechanical resistance is obtained after 7 days.

CLEANING

Uncured material may be removed using **Thinner No 1**. Cured material may only be removed mechanically.

SHELF LIFE

MASTERTOP 1220 may be stored in tightly sealed original containers for 12 months in controlled environments, maximum temperature 30°C.

PACKAGING

MASTERTOP 1220:

A1 Resin	9.4kg
B1 Hardener	3kg
X1 Colour Pack	0.6kg
F1 Filler	15kg
F5 Sand	25kg
B2 Hardener	2.8Kg

PRECAUTIONS

Read all safety directions and warnings on tins before use. Refer to material safety data sheet for handling procedures. As with all epoxy products wear protective overalls, goggles and impervious gloves. Prolonged contact with skin should be avoided as it could produce dermatitis, particularly with people whose skin may be sensitive to epoxy resin systems. Ensure adequate ventilation.

Mix entire contents of each unit as supplied. Do not attempt to split units unless accurate measurement can be assured.

Do not use at temperatures of less than 8°C ambient or substrate or at relative humidity greater than 80% without reference to BASF Construction Chemicals. Consider pre-warming materials to 23°C - 28°C approx for ease of handling. In cold environments, exposure to water prior to full cure may cause a whitening of the surface.

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STATEMENT OF RESPONSIBILITY

The technical information and application advice given in this **BASF** 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.

NOTE

Field service where provided does not constitute supervisory responsibility. Suggestions made by **BASF** either orally or in writing may be followed, modified or rejected by the owner, engineer or contractor since they, and not **BASF**, are responsible for carrying out procedures appropriate to a specific application.

BASF Australia Ltd
A.B.N. 62008437867
Head Office: 11 Stanton Road Seven Hills, NSW 2147
Ph. (02) 8811 4200

Newcastle (02) 4961 3819
Canberra (02) 6280 6010
Brisbane (07) 3633 9900
Townsville (07) 4774 7344
Melbourne (03) 9549 0300

Adelaide (08) 8139 7500
Perth (08) 9366 2600
Darwin (08) 8984 3269
Kalgoorlie 0417 772 355

BASF New Zealand Ltd
BASF WEB SITES

Head Office: 45 William Pickering Drive, Albany, Auckland Ph: (09) 414 7233
www.basf-cc.com.au www.basf-cc.co.nz www.meyco.basf.com