degussa.
Construction Chemicals

MASTERTOP â 1230

2 – 4mm Self Smoothing Epoxy Flooring System

Description of Product

MASTERTOP® 1230 is a 3 component self smoothing, joint less solvent free epoxy flooring system, providing an attractive easy to clean floor designed to be applied from 2-4mm thickness. Only the very best quality epoxy resins and curing agents have been chosen with no non-reactive diluents to ensure a blemish-free finish and optimum technical performance.

Fields of Application

- Chemical, pharmaceutical and food industries.
- Clean rooms, laboratories and hospitals.
- Packing areas.
- High technology industrial use.
- Warehouses subject to light and medium traffic.
- Manufacturing & engineering plants.
- Automotive and aerospace industries.

Features and Benefits

- Seamless and even surface - smooth running and low noise.
- Excellent maintenance and cleaning properties - low cleaning costs.
- Easy decontamination - ideal for clean rooms and sterile areas.
- Fast and simple application - economically installed.
- Modular resin system - available in bulk packaging for suitably qualified contractors.

Technical Data/Typical Properties @ 20°C

Colour	The MASTERTOP® 1200 range is available in a range of architectural colours, Safety Yellow and White see separate Colour Selection Chart
Compressive strength (BS 6319 Pt.2)	1 day > 40N/mm^2 3 days > 52N/mm^2 7 days > 72N/mm^2
Flexural strength (BS 6319 Pt.3)	> 66N/mm^2
Tensile strength (BS 6319 Pt.7)	>12N/mm^2
Minimum application temperature (to ensure flow characteristics)	8°C
Pot life	20-30 mins
Chemical resistance	Good resistance against mineral acids, alkalis, solvents, beverages and diluted organic acids. Consult Degussa Construction Chemicals UK Technical Services Dept for further advice
SG Typically	2.0 – 2.1

Application Procedure

Preparation of substrate

Substrate must be clean, sound and free from all contaminants such as oil, paints and other materials which might inhibit good adhesion. Mechanical preparation is normally required.

Degussa Construction Chemicals (UK)
Albany House, Swinton Hall Road, Swinton, Manchester, M27 4DT
Tel: 0161 794 7411 **Fax:** 0161 727 8547

Any repairs or making good should be completed in good time prior to installation.

Concrete surfaces shall be free from laitance. Pre-treatment is best done by vacuum recovery shotblasting, grinding, or concrete planing.

New floors should be at least 28 days old.

Substrate moisture content must be less than 4%. All ground concrete slabs must have installed an effective vapour barrier/damp proof membrane.

NB: If there is any doubt as to the efficacy of the DPM use the vapour permeable MASTERTOP® 1700 systems.

Priming

Ensure that the substrate has been adequately prepared, and that it is free from dust and building debris and that the area has been secured to prevent the intrusion of dust, airborne particles, insects, small animals etc. Make sure doors and windows are closed.

Ensure sufficient materials are available for the work at hand together with the necessary tools and man power. Protect walls and columns against roller marks and splashes and mark edges with masking tape or laths to avoid overflow of material.

Mix MASTERTOP® EP PRIMER components together (A + B) using a slow speed drill and mixing paddle. Mix until a homogeneous state is achieved. Apply at a rate of 3 - 4 m²/litre. The main purpose of applying the primer is to reduce the risk of any bubbles in the body coat. Ensure that the substrate is fully closed, if in doubt apply a second coat of primer.

Mixing

Mix one unit of the resin (component A – 20.0 kg) with unit of hardener (component B - 5.1 kg) stirring continuously. When thoroughly mixed, gradually add in 2 bags of filler (C23 Filler – 2 x 15 kg) and continue mixing until lump free and uniform in colour.

Application

Ensure that sufficient materials are available for the work at hand, together with the necessary tools and manpower for the area to be completed.

Note: To avoid colour deviation from one batch of resin to another, only use resins with the same batch number in the same area.

Placing

Pour the body coat material, immediately after mixing onto the floor in strips of 10 -20cm width and parallel to the work direction. Spread the material into a level layer 2-3mm thick. Always blend fresh with old material by working it together with the trowel.

For larger areas remember that the whole area must be finished within the pot life of the product. For long continuous runs, de-aeration must proceed in step with laying.

Leave the placed material to de-aerate for 10-15 minutes and remove air bubbles and trowel marks by rolling with a spiked roller.

Typically at 20 °C the finished MASTERTOP® 1230 is ready for light traffic loads after only 18-24 hours.

Full cure normally up to 7 days for full chemical exposure and resistance.

Surface finishes

MASTERTOP® 1230 cures to a high gloss, smooth non-greasy finish. Alternative finishes can be achieved as follows:

Semi matt - By blowing mica flakes onto the surface before cure.

Anti-slip - MASTERTOP® 1230 can be used as the base coat for an industrial heavy duty anti-slip floor system between 2.5 and 4mm thick. Simply apply the product as above at thickness' from 1.5 to 3mm as required. After spike rolling broadcast the surface to excess with MASTERTOP® F5 FILLER to completely 'blind' the resin (approximate net usage 2-4 Kg/m²).

Allow to cure overnight, sweep and then vacuum clean the surface.

The surface is then sealed using MASTERTOP® 1210 applied by airless spray or squeegee and back rolling with a short haired roller

NB: Usage rate of sealer coat: ~ 3m²/l.

Degussa Construction Chemicals (UK)
Albany House, Swinton Hall Road, Swinton, Manchester, M27 4DT
Tel: 0161 794 7411 **Fax:** 0161 727 8547

Notes:

1. In areas of deeply penetrating contamination by oils, greases, and fats, hot compressed air, followed by impregnation with a low viscosity sealer/primer is the recommended treatment.

2. Expansion, control and isolation joints in concrete substrates should be carried through MASTERTOP® floors and filled with a suitable sealant, eg. MASTERFLEX® 700 2 Part Polysulphide or MASTERFLEX® 460 2 Part Polyurethane.

3. At details where MASTERTOP® 1230 systems will terminate, for example, at expansion, control or movement joints, or at doorways, it is recommended practice that the material be given additional protection using tie chasers. Tie chasers are grooves cut in existing concrete about 3-4mm deep and wide. This is particularly important where the leading edge is subject to small wheeled traffic.

Cleaning

Tools must be cleaned immediately after use with FEB CLEANING SOLVENT NO.2 or other suitable solvents. Cured material can only be removed mechanically.

Coverage

A 55.1 kg unit of MASTERTOP® 1230 (see below) will yield approx. 27.5 litres of material.

For an average 2 mm floor on a good quality concrete substrates, approximately:
1 unit of MASTERTOP® 1230 +
2 units of C23 Filler

will cover 13.5 m^2 of floor area.

MASTERTOP® EP Primer*:* A 5 litre pack will cover 25m^2 at 5m^2/litre.

Packaging

MASTERTOP® 1230

Resin component A	20.0 kg in 20 litre bucket
Hardener component B	5.1 kg in 5 litre polybottle

MASTERTOP® C23 Filler 15.0 kg sack

Storage

Store in unopened containers in cool, dry conditions at ambient temperatures between 5 - 35°C (ideally 15 - 20°C).

Shelf Life

2 years if stored in accordance with manufacturer's instructions.

Health and Safety

*For full information on Health and Safety matters regarding this product the relevant Health and Safety Data Sheet should be consulted.

The following general comments apply to all products.

As with all chemical products, care should be taken during use and storage to avoid contact with eyes, mouth, skin and foodstuffs, (which may also be tainted with vapour until the product is fully cured and dried). Treat splashes to eyes and skin immediately. If accidentally ingested, seek medical attention. Keep away from children and animals. Reseal containers after use.

Solvent Based Products

Use in well ventilated areas; avoid inhaling. Suitable respiratory equipment may be needed, eg when spraying. Can cause skin, eye irritation. Wear protective eye shields and gloves during use. Do not smoke or allow sparks or naked lights when stored or in use.

Powder Products

Should be handled to minimise dust formation; use light mask if excessive dust unavoidable. Cement powders when wet or moistened can cause burns to skin and eyes which should be protected during use.

Resin Products

Can cause irritation, dermatitis or allergic reaction. Use protective equipment particularly for skin and eyes. Use only in well ventilated areas.

Spillage

Chemical products can cause damage; clean spillage immediately.

Disclaimer:

This information and all further technical advice is based on our present knowledge and experience. However, it implies no liability or other legal responsibility on our part, including with regard to existing third party intellectual property rights, especially patent rights. In particular, no warranty, whether express or implied, or guarantee of product properties in the legal sense is intended or implied. We reserve the right to make any changes according to technological progress or further developments. The customer is not released from the obligation to conduct careful inspection and testing of incoming goods. Performance of the product described herein should be verified by testing, which should be carried out only by qualified experts in the sole responsibility of a customer. Reference to trade names used by other companies is neither a recommendation, nor does it imply that similar products could not be used.

.

Degussa Construction Chemicals (UK)
Albany House, Swinton Hall Road, Swinton, Manchester, M27 4DT
Tel: 0161 794 7411 **Fax:** 0161 727 8547