MASTERTOP® 1730

Self-smoothing vapour permeable epoxy overlay system

Description

MASTERTOP 1730 is a multi-component vapour permeable self-smoothing epoxy overlay system, designed for continuous protection at application thicknesses between 2.0mm-4.0mm. MASTERTOP 1730 is formulated to produce a smooth, non-gloss, slip-resistant finish, even in wet conditions. The system is water vapour permeable allowing its use on damp substrates, or green concrete floors. It may also be used effectively on substrates with no functioning damp proof membrane.

Primary uses

The smooth, dense, non-gloss finish of MASTERTOP 1730 is ideal for situations requiring a hygienic, easily cleaned durable surface. MASTERTOP 1730 has good wear and abrasion resistance and is suitable for use in many industrial applications as a topping. It is especially suitable in food, beverage, and wet process industries.

The product offers good general resistance to a broad spectrum of chemicals, but as in all cases of chemical exposure a full analysis of operating conditions is required, followed by reference to chemical resistance data, to ensure product suitability.

MASTERTOP 1730 may be applied in the following industries.

NB This gives examples only and does not constitute a full and comprehensive list. For further information on application possibilities contact Degussa Construction Chemicals.

- Food & beverage production - including dairies, bakeries and confectioneries
- Pharmaceutical, medical or laboratory situations.
- Engineering and general industrial areas
- Showrooms, demonstration areas
- High stack warehouses.
- Wet process industries

Advantages

- Cures at Low Temperatures (5ºC)
- Can be applied to green or damp concrete
- Does not require functioning damp proof membrane
- Vapour permeable
- Excellent wear and abrasion resistance
- Smooth non-gloss finish for hygienic applications
- Good general chemical resistance
- Coloured - improves the working environment

Packaging

MASTERTOP 1730 is supplied in 37kg units (including colour pack).

Typical properties*

* Properties listed are only for guidance and are not a guarantee of performance.

Pot life:	10°C	45 mins
	20°C	35 mins
	30°C	20 mins
Specific gravity at 25°C		
Mixed material		1.74
MASTERTOP 1700 resin only		1.05
Compressive strength (BS 6319 Pt 2):		40N/mm²
Flexural strength (BS 6319- Pt 3):		20N/mm²
Water vapour permeability	DIN 52615	6000
Abrasion Taber CS 17 1kg	1000rpm	110gm.
Service temperature	-20ºC to +60°C (maximum)	

Guide to application

Surface preparation:

The preferred method for surface preparation of concrete is captive blasting, which gives a well prepared laitance free, vacuum cleaned surface with a roughened finish.

Other suitable methods are surface scarifying using mechanical scarifiers such as Errut or Von Arx, high pressure water jetting or sand/grit blasting.

Damaged or deeply pitted areas can be repaired and levelled using MASTERTOP 1730 filled out, if required, with additional appropriate MASTERTOP SRA aggregate.

Prior to application MASTERTOP 1710 should be stored under cover in air-conditioning and protected from extremes of temperature which will cause inconsistent workability, finish and cure times for the mixed material

Sealing:

It is essential to seal the concrete surface prior to the application of MASTERTOP 1730, to prevent air from the substrate rising through the MASTERTOP 1730 while it cures.

Prior to the application of the sealer coat the concrete can be soaked with clean potable water to reduce the danger of pinholes.

Seal the concrete with MASTERTOP 1700 resin.

Pour the base and reactor component into a clean vessel then using a slow speed drill and paddle, mix the components for a minimum of 1 minute, or until a uniform colour is achieved.

MASTERTOP 1700 can be applied to a damp substrate, but all standing water must be removed prior to application.

Apply the mixed sealer to the prepared dust free surface with a medium pile roller, at the

rate of 5-8m² per litre depending on the surface profile of the concrete. Allow the sealer to become tack-free before applying the MASTERTOP 1730.

Mixing:
Do not mix the components in the reactor container as minor settlement may occur. Pour the reactor, base and colour pack into a 30 litre container and mix thoroughly using a suitable drill and paddle for a minimum of 1 minute, or until all striations have disappeared. Pour the mixed material into a suitable container of not less than 30 litres capacity then with the mixer running, slowly add the 1730 aggregate and mix for 2 minutes or until the mixture is smooth and free of lumps.

Always keep the mixing time the same for all batches, to ensure a uniform colour when the product is applied.

Laying:
Pour the mixed material onto the tack free sealed surface, and spread to the required thickness using a pin screed, notched trowel or steel float. As soon as the material has been spread to level, the applied material should be rolled with a spiked roller to release entrapped air and remove trowel marks.
Rolling should be continued until all air is released and a uniform colour is obtained.
The operator should always wear spiked shoes when using the spiked roller so that he can walk in the wet material.
Rolling should cease before the MASTERTOP 1730 begins to gel.

Equipment

Vacuum recovery shot blasting machine	Scabbler
Masking tape / polythene sheets	Grinder
Heaters for cold weather work	Overalls
Serrated trowels or pin screeds	Lighting
Slow speed drill with suitable paddle	Spiked roller
Brushes or short hair rollers	Spiked shoes
Industrial vacuum	Pin screed

Equipment care

Remove MASTERTOP 1730 from tools and equipment whilst still wet using water. Cured resin will require mechanical removal.

Yield

A 37kg unit will yield 21.2 litres of mixed material.

Sealer:
Resin only components as supplied, will yield 10.7 litres. Coverage will be in the range of 6-8m²/litre.

Storage

Shelf life is upto one year when stored under cover, out of direct sunlight and protected from extremes of temperature.

Quality

All products produced by Degussa certified manufacturing facilities, are produced to conform to systems designed to meet internationally recognised quality standards.

08/2005 Degussa-IR