

# MASTERTOP®

## 1105

### Solvent free pitch epoxy coating

#### Description

MASTERTOP 1105 is a high build, two component, solvent free, epoxy resin coating modified with specially refined coal tar pitch. Combining MASTERTOP 1105 with high grade MASTERTOP AGGREGATES will produce a slip resistant durable, coatings for numerous industrial situations.

#### Applications

MASTERTOP 1105 provides improved safety as a slip resistant coating for floors, ramps and other sloping surfaces which are subject to spillages of oils, grease or soaps. These slip resistant properties are especially important around machinery in engineering and associated industries, and in other areas where constant heavy traffic can leave concrete smooth, polished and consequently dangerous.

In addition to concrete, MASTERTOP 1105 will protect weathered bitumen, asphalt and tar based materials from attack by fuels and oils, making it particularly suitable for use around fuel pumps and in vehicle maintenance shops.

MASTERTOP 1105 offers resistance to a wide range of chemicals and aggressive solutions found in general industry, but as

in all corrosive situations, a full analysis of operating and exposure conditions is required followed by reference to chemical resistance data to ensure product suitability.

#### Packaging

MASTERTOP 1105 is supplied in 10 litre packs and CONCRETE 1020 in 1 litre packs. MASTERTOP 1105 Aggregate is available in 11kg.

#### Typical properties\*

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

Pot life:	25°C	1 hour
	40°C	20 mins
Mixed density	1.82 g/cm³ @ 25°C	
(Base + Reactor + 1105 Agg)		
Max. service temperature:	65°C	
Tack free	25°C	12 hours
	40°C	5 hours

#### Application procedure

##### Preparation:

MASTERTOP 1105 must be applied to a clean, dry substrate free from dust, dirt, oil, grease and other contaminants. A clean surface will ensure adhesion between substrate and overlay.

Specialist finishes should not be applied to concrete which contains more than 5% moisture by mass.

**New construction:**

Floors to be coated or overlaid should be at least 28 days old unless water reducing admixtures have been incorporated. (Consult Degussa's Technical Dept. for advice).

**Existing concrete:**

All contamination must be removed and a sound clean substrate exposed. Mechanical means of preparation such as vacuum recovery shot blasting, high pressure water jetting, grit blasting or surface grinding are preferred followed by the removal of dust and other loose debris using an industrial vacuum.

Contamination by oils, grease and fats must be removed before starting other forms of preparation.

**Steel:**

Grit or shot blast to SA 2½ giving a surface profile of greater than 60 microns.

MASTERTOP 1105 should be maintained at approximately 20°C for at least 24 hours before mixing. During mixing in cold conditions correct conditioning is essential, but application should be halted if the ambient or substrate temperature is likely to fall below 10°C. Consideration should be given to the substrate or base slab as it is likely to be considerably colder than the surrounding air temperature. As the temperature increases pot life and working times are reduced.

**Mixing:**

Stir in both components before use. Pour the contents of the reactor tin into the base tin and mix with a low speed drill and paddle for 2-3 minutes until a uniform consistency is achieved. Pay particular attention to the sides and bottom of the mixing container and scrape during mixing to ensure complete dispersion.

A full mixed pack of MASTERTOP 1105 has a pot life of 30 minutes and must be used within that period. However, the pot life maybe extended by transferring the material, immediately after mixing, to a shallower container.

If MASTERTOP 1105 AGGREGATE is to be used as a filler, it should be added after the reactor and base resins have been mixed.

**Application:**

Porous substrates should be sealed with CONCRESEIVE 1020 primer prior to application of MASTERTOP 1105. Consult Degussa's Technical Dept. for specific advice.

MASTERTOP 1105 can be applied by brush, short nap roller, serrated trowel or pin screed depending on the thickness required. If applied at thicknesses greater than 1mm then the applied coating should be rolled with a spike roller immediately after application to remove entrapped air. MASTERTOP SLIP RESISTANT AGGREGATES should be broadcast into the wet coating within 15 minutes of application.

MASTERTOP 1105 can be applied by different methods to suit intended finished uses.

### Method 1

**Slip resistant walkways, stairs, etc. Finished thickness approximately 0.8-1mm**

Apply MASTERTOP 1105 by roller to the thoroughly prepared substrate at a rate of 0.2 litres/m<sup>2</sup>. Broadcast MASTERTOP SRA No. 1 on to the wet surface at a rate of 2.0 kg/m<sup>2</sup>, ensure the surface of the MASTERTOP 1105 is completely covered.

Allow to dry then remove excess aggregate by vacuum or soft brush, before applying a top coat of MASTERTOP 1105 to give a uniform surface finish at a rate of 0.2lts/m<sup>2</sup>.

### Method 2

**Internal ramps, slopes and heavily trafficked areas, finished thickness approximately 1.5-2.0mm.**

Apply MASTERTOP 1105 at 0.4 litres/m<sup>2</sup>. Broadcast MASTERTOP SRA No. 3 onto the wet film at the rate of 3-4kg/m<sup>2</sup> and allow to dry. Remove excess aggregate, then overcoat with MASTERTOP 1105 at the rate of 0.4-0.5lts/m<sup>2</sup>.

### Method 3

**External ramps, slopes and heavily trafficked areas, finished thickness approximately 4.0-5.0mm.**

To the mixed MASTERTOP 1105 add one bag of MASTERTOP 1105 AGGREGATE and mix for 1-2 minutes.

Apply by serrated trowel or pin screed at a rate of 1.5 litres/m<sup>2</sup>. Broadcast MASTERTOP SRA No. 3 on the wet MASTERTOP 1105 at a rate of 6-7kg/m<sup>2</sup>. Allow to dry. Remove excess aggregate and overcoat with MASTERTOP 1105 at a rate of 0.5-0.8 litres/m<sup>2</sup> if required. For the above systems allow a minimum of 12 hours and a maximum of 48 hours between coats.

### Method 4

To the mixed MASTERTOP 1105 add 1 bag of MASTERTOP 1105 aggregate and mix for 1-2 minutes. Apply the mixed material to the prepared substrate at a thickness of 3-4mm for medium duty or 4-5mm for heavy duty application, using trowel or pin screed. As soon as the material is spread to level, roll it with a spiked roller to release entrapped air. When rolling is complete but within 15 minutes from the time of laying, broadcast suitable hard wearing aggregate into the wet surface at the following rates:

### Medium duty

1-3mm aggregate at 12kg/m<sup>2</sup>

### Heavy duty

1-3mm aggregate at 16kg/m<sup>2</sup>

Remove excess aggregate after 24 hours.

### Trafficking @ 20°C

Foot traffic	24 hours
Light to medium traffic	48 hours
Heavy traffic	3 days

Excess aggregate which will be about 25-30% can be reused if kept clean.

## Yield

14 litres / 10 litre pack of MASTERTOP 1105 with 11kg of MASTERTOP 1105 Aggregate.

## Storage

Store under cover out of direct sunlight and protect from extremes of temperature. In tropical climates the product must be stored in an air conditioned environment. Shelf life is up to 1 year when stored as above.

## Note

Field service, where provided, does not constitute supervisory responsibility. For additional information contact your local Degussa representative.

Degussa reserves the right to have the true cause of any difficulty determined by accepted test methods.

## Quality

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

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