BASF
The Chemical Company

MasterTop® 1705 (formerly known as Mastertop 1110)

Water dispersed epoxy resin coating

DESCRIPTION

MasterTop 1705 is durable coloured coating based on an advanced water-dispersed, two-part epoxy resin. It has been specially formulated to provide a durable coating system.

MasterTop 1705 is suitable for contact with water intended for human consumption. It complies with SS375:1994 and is an approved material by Public Utilities Board of Singapore.

RECOMMENDED USES

MasterTop 1705 can be applied on a wide variety of substrates such as concrete, masonry, etc. It is recommended as a protective coating on floors and walls where both high levels of aesthetics and chemical resistance are desired. Applications include:

- coating areas in contact with potable water;
- wall coating in pharmaceutical and other areas that must be easy to clean;
- protection of floors against mild acids, alkalis, mineral oils, etc.;
- road tunnel wall coatings to improve the light conditions, to facilitate easy maintenance and to protect concrete against chemicals / pollutants;
- tunnel segment protection coating;
- curing membrane for concrete;
- light traffic areas in industrial buildings and warehouses.

FEATURES AND BENEFITS

- **Odourless and nontoxic** – Safe.
- **Resistant to attack by chemicals** – Lowers maintenance costs.
- **Water vapour permeable** – Allows surface to breathe, preventing build-up of moisture in the structure.
- **Nonflammable** – Advantage in areas prone to fire hazard.
- **Color fast** – coating is not readily affected by exposure to light.
- **Tools can be cleaned with water** – environmentally friendly and cost saving

PROPERTIES

Components	Supply form	Colour	Density kg/L
MasterTop 1705 PTA	Liquid	Coloured	1.40
MasterTop 1705 PTB	Liquid	Amber	1.01

Mixed Systems	Components	Mix ratio by weight
MasterTop 1705	A:B	1:1
Service Temp	-20ºC to 60ºC	
Application Temp	Min 10ºC	Max 35ºC
Pot-life (minutes)	@20ºC	@30ºC
MasterTop 1705	30	15

Curing Tiime	@10ºC	@20ºC	@30ºC
MasterTop 1705	7	2	1

Maximum permissible relative humidity	@10ºC	>23ºC
All components	75%	90%

Note: As water dispersed epoxy formulations show no clear signs of end of pot life such as increase viscosity or an exothermic reaction, it is possible that the material be applied after the expiry of the pot life. This must be avoided because material applied past pot life will develop a different colour from those applied within pot life. Therefore, no material should be applied after the material's pot life as indicated in the preceding table.

APPLICATION

Surface Preparation

Correct substrate preparation is critical for optimum performance. Surfaces should be structurally sound direct tensile strength of more than 1.5 MPa via a pull off tester with a load rate of 100N/s), clean, and free from laitance, loose particles, oil and grease, old coatings, curing compounds or any other contaminants.

Remove oil or grease and wax contaminants by scrubbing with industrial grade detergent or degreasing compounds before mechanical preparation. Cement laitance, loose particles, mould release agents, curing membranes and other contaminants must be removed from the

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surface by shot-blasting, grinding or scarifying followed by vacuum cleaning.

Prior to priming use MasterEmaco® repair mortars to achieve a smooth and level surface by filling holes and irregularities.

Protect walls and columns against resin splashes using masking tape and polythene sheeting.

Mixing

Use a low speed (300 rpm) electric drill fitted with a paint mixer or a wing type paddle. Premix the **MasterTop 1705** Part A until the mix is free from streaks and then add the **MasterTop 1705** Part B and mix for at least 3 minutes or until the mix is uniform and free of streaks.

Placing

The first coat should be applied either onto a damp (saturated surface dry) substrate or diluted with 10% additional clean water by roller. The primed area should be protected from contamination for 24 hours or until tack free prior to the subsequent coat (s) being applied.

Depending on the surface finish and colour, up to 3 coats may be required to achieve the required colour density. After the final coat the surface should be protected from foot traffic for at least 24 hours. Full traffic load should be delayed until at least 72 hours after the final coat.

Apply using spray, paint-roller or brush. IF using a spray up to 10%water can be added to facilitate spraying.

ESTIMATING DATA

System	Product	kg/m3	Thickness mm (wft)
1st coat	**MasterTop 1705** Diluted with (approx) 10% water	0.20-0.30	0.15
2nd and 3rd coat	**MasterTop 1705**	0.20-0.25	0.15-0.20

CLEANING

Clean tools using water and rags before the resin system hardens. Hardened material can only be removed mechanically.

PACKAGING

MasterTop is available in 10 kg/set.

SHELF LIFE

MasterTop1705 can be kept for12 months in original unopened packing when stored indoors. Do not store in direct sunlight and avoid allowing the material to freeze which will render the material unusable.

PRECAUTIONS

For detailed Environmental, Health and Safety information, please consult and follow all instructions on the product Material Safety Data Sheet. Contact your local BASF office for the latest version.

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