MasterCoat ER 1080

Epoxy based durable high build coloured floor coating

Material Description

MasterCoat ER 1080 is a durable floor coating based on a high build, hard wearing, two-component epoxy resin system. The cured floor provides excellent resistance to both chemical and mechanical damage. MasterCoat ER 1080 has a user-friendly mix ratio and pot life and provides a hard, durable and glossy film. MasterCoat ER 1080 may be applied to a wide variety of substrates (concrete, masonry, timber etc) and can be coloured to suit the environment.

Areas of Application

Floors and as a corrosion resistant coating to most construction materials in:

- Workshops
- Chemical industries
- Pharmaceutical and cosmetic facilities
- Food and drink processing plants
- Electronic and electrical industries
- Mining industries
- Water and sewerage treatment plants
- Warehouses
- Multi-level carparks

Characteristics and Benefits

- Pre-packaged and proportioned - no onsite mixing errors
- Excellent durability – suitable for forklift traffic
- High resistance to chemical attack – suitable for contact with chemicals
- Multipurpose - can be applied to vertical and horizontal substrates
- Long pot life – extended working time
- Bonds to damp surfaces - suitable for shutdown work
- Can be coloured - enhances work environments
- Non-skid texture adjustable – skid resistance matched to the use

Properties

Supply form	Liquid
Colour	Full range using MasterCoat 2400
Mix Ratio	1:1 v/v
Volume solids	Approx. 85%
Application temperature	Min 5°C Max 35°C
Temperature resistance (300 microns DFT)	Max 90°C dry heat 60°C hot water
VOC content (ASTM D 3960) g/L	63

Performance Data

Dry film thickness	300 microns (2 coats)
	400 microns (non-skid)
Abrasion Resistance	High
Gloss Finish	Semi

Resistant to a wide range of chemicals after full cure including:

- Diesel and motor oils
- Cooking oils
- Acetic Acid 5%
- Hydrochloric acid 20%
- Sodium Chloride 50%
- Cutting oils
- Petrol
- Fruit juice
- Ethanol 30%
- Ammonium chloride
- Oleic Acid

Refer to Master Builders Solutions for more information.

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Application

The compressive strength of the substrates shall not be less than 25MPa. The substrates in contact with the ground must have a vapour barrier installed in compliance with DIN 18195 or equivalent, or be primed with MasterEmaco 2525. The moisture content of the substrate shall not be higher than 8% throughout (test by using CM equipment).
The temperature of the substrates must be at least 3°C above the current dew point temperature.
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 membrane and other contaminants must be removed from the surface by shot-blasting or grinding followed by vacuum cleaning to achieve a CSP 3 or greater surface profile. After pre-treatments of the substrate, the bond strength of the substrate must be at least 1.5 N/mm^2 (check with an approved pull-off tester at load rate 100 N/s).
Fill surface irregularities such as blowholes, cracks, honeycombs, etc with a MasterEmaco repair mortar to achieve a smooth and level surface.
Protect walls and columns against resin splashes using making tape and polythene sheeting.

Mixing

It is advisable to ensure that all the MasterCoat 2400 colour packs are of the same batch to minimise risk of colour variation. All mixing should be done using a slow speed drill (max. 600 rpm) and a spiral-mixing paddle.
Premix Part A (resin), add the MasterCoat 2400 colour pack/s, and thoroughly mix to ensure all the pigment is dispersed. Add Part B (hardener) and continue to mix for 3 minutes. Ensure all containers are empty before disposal. Stand about 15 minutes after stirring in cold weather (below 15°C).
Whilst **MasterCoat ER 1080** is supplied in pre-proportioned kits, smaller quantities may be mixed. It is important that the mix ratio of 1:1 v/v is adhered to.

Application

Apply by brush or roller or spray to the prepared surface. A minimum of two coats must be applied. The first coat may be thinned up to 10% with **MasterCoat THI 955** thinner to aid penetration. Where a non-slip finish is required the non-slip aggregate must be broadcast into the first coat and the excess removed before applying second coat. The size and quantity of aggregate broadcast should be selected to provide the required degree of slip resistance and is best determined by the trial area. The use of MasterCoat FIL 1 and MasterCoat FIL 5 fillers are suitable as non-slip aggregates.

Pot Life

Pot life will vary depending on the ambient temperature, quantity mixed and placed.

Curing

Cure time will vary depending on the ambient and substrate temperatures. **MasterCoat ER 1080** will cure to a tack free surface within 6 hours at 23°C and is overcoatable after 18 hours and not more than 36. **MasterCoat ER 1080** should be protected from traffic and spillage for at least 36 hours. Full chemical and mechanical resistance is obtained after 7 days @ 23°C.

Estimating Data

Over dense surfaces with texture similar to fine-medium sandpaper, the coverage rate is 5m^2 per litre per coat. On more porous surfaces or in non-skid textures, typical coverage rate is 4m2 per litre per coat.

MasterCoat ER 1080 wet film thickness				
L	Thickness in mm /m^2	m^3	pails /m^3	m^2/mm thickness
20	20mm	(0.02)	50	20 m^2

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Cleaning

Use MasterCoat THI 955 to clean equipment and tools before the material hardens. Cured material can only be removed mechanically.

Packaging

MasterCoat ER 1080 is supplied in 20 litre kits comprising:
Part A: 8.8 litres
Part B: 10 litres
MasterCoat 2400: 4 x 0.6kg or 1 x 2.4kg/ 1.2 litres
NOTE: Where light colours, (yellow/white etc.) are required, the addition of extra colour packs are advised to ensure opacity. A third coat is also recommended. MasterCoat ER 1080 may change in appearance when exposed to UV light.

Storage & Shelf Life

MasterCoat ER 1080 can be stored in tightly closed original containers for 12 months in controlled environments.

Precautions

For the full health and safety hazard information and how to safely handle and use this product, make sure that you obtain a copy of the Safety Data Sheet (SDS) from our office or website

Disclaimer

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