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MasterProtect[®] 180 (Formerly known as MasterSeal 180M)

A non-toxic, solvent-free, high build, protective epoxy resin coating

DESCRIPTION OF PRODUCT

MasterProtect 180 is a protective, high build epoxy resin coating specifically developed to protect concrete and steel. Supplied as a two-pack system comprising pigmented base and a hardener, it requires only on-site mixing to produce an easily applied decorative and chemically resistant finish.

MasterProtect 180 can be safely used in areas where contact with foodstuffs is envisaged or for coating potable water storage tanks.

It is solvent free and can be used with safety in small rooms or tanks without the need to provide special ventilation.

MasterProtect 180 coatings will not support the growth of bacteria.

PRIMARY USES

- For the internal protection of concrete or metal tanks containing drinking water, certain chemicals, oils and fuel.
- As an impervious, resilient and chemically resistant floor or wall coating in food manufacturing plants, breweries, canning and bottling factories and as gas and vapour barrier.
- As a protective and decorative coating in laboratories, abattoirs, etc. Other usage areas include oil refineries, paper mills, power stations, garages, hospitals, sugar refineries, hangars and most liquid containment areas.

COLOURS

Standard colours are: light grey; grey; dust grey and black.

ADVANTAGES

- Durable
- Non-toxic
- Waterproof and protective
- High chemical resistance
- Solvent free
- High build coating
- Easily applied by brush or roller

PACKAGING

MasterProtect 180 is supplied in 5kg units.

TYPICAL PROPERTIES

Pot life at 20°C:	120 minutes
at 30°C:	90 minutes
Mixed density:	1.45 ± 0.10kg/ltr at 25°C
Tack-free time:	Approx. 4 hours at 35°C
Initial cure:	12 hours 30°C
Final cure:	4 days at 30°C
Coverage:	0.20-0.30kg/m ² /coat
Finished film thickness:	150 to 220 microns per coat
Bond to concrete:	In excess of the cohesive strength of concrete

APPLICATION PROCEDURE SURFACE PREPARATION:

The substrate should be a smooth or semi-smooth sound surface, such as concrete or metal. It is most important to ensure that thorough surface preparation is undertaken prior to application of the **MasterProtect 180** coating.

CONCRETE:

Ensure concrete is free from excessive laitance, grease, oil, curing compound, etc. Ensure concrete is sound, cutting back, where necessary, and making good using suitable BASF MasterEmaco or MasterBrace repair systems. Ensure all blowholes and surface imperfections are made good prior to application of the **MasterProtect 180** coating.

Ensure concrete is at least 28 days old. Contamination by oil, grease, fats, etc. must be removed before other forms of preparation begin. Remove laitance to expose blowholes, by light grit blasting.

STEEL:

All previous surface treatments should be removed, taking the surface back to base metal. The base metal should be abraded, and preferably shot blasted with grit, steel shot or proprietary abrasive. Where shot blasting is impractical, pre-treatment may be carried out with pneumatic descaling guns, tap hammers,

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rotary wire brushes or by flame scaling. Cleaning with solvent or a strong detergent is advisable to ensure surface is free from grease, etc. Do not allow surface to re-oxidise before application of **MasterProtect 180**.

MIXING:

MasterProtect 180 is supplied in two pre-weighed components, base and reactor. No additions or omissions are required. Add reactor contents to the base component and mix thoroughly, using a slow speed drill fitted with a suitable mixing paddle, until a uniform streak free colour is achieved.

APPLICATION:

MasterProtect 180 coating can be applied using good quality rollers or shorthaired brushes or by airless spray. It is recommended that **MasterProtect 180** coating be applied in two coats of contrasting colours to ensure complete coverage.

Prior to the application of each coat, the surface should be examined for signs of pin holing, etc. Where pin holing is evident, it should be filled using **MasterBrace ADH 2200**

All concrete surfaces to be overlaid with **MasterProtect 180** should be sealed with a coat of **MasterProtect 180** diluted 10% with solvent.

Allow to cure overnight before applying a second coat of **MasterProtect 180**, un-diluted, to achieve desired film thickness. Where it is possible, the second coat should be applied at right angle to the first. If the application is delayed more than 16 hours at 40°C or 36 hours at 20°C after the previous coat (the higher the ambient temperature, the shorter the maximum period), then the previous coat must be thoroughly abraded to give an adequate mechanical key and solvent wiped.

AIRLESS SPRAY:

For application by airless spray, use a 45:1 or higher ratio pump, minimum 9mm dia hoses and HD tip 19-23 thou.

OVER COATING:

Where areas need to be over-coated, due to damage, etc., it is important that the areas to be treated are well abraded, using a stiff rotary wire brush or coarse sand paper to give an adequate key. Completely strip off any unsound coating and proceed with over-coating as for new work.

CHEMICAL RESISTANCE

MasterProtect 180 is resistant to the following typically encountered chemicals:

- De-ionised water
- Sodium Chloride, 20% solution
- Phosphoric Acid, 10% solution
- Acetic Acid, 50% solution
- Ethyl alcohol, 20% solution
- Leaded gasoline
- Crude oil
- Wine
- Sea and brackish water
- Aviation hydraulic fuels (Skydrol)
- Vegetable oils

EQUIPMENT CARE

All equipment must be cleaned immediately after use with solvent. Similar cleaning procedures should be adopted for break periods exceeding 15 minutes duration.

SPECIFICATION CLAUSE MASTERPROTECT 180:

Where indicated, apply **MasterProtect 180** protective epoxy coating as manufactured by BASF, or similar approved, to the following specification:

Composition:	Two-component, non-toxic, pigmented, solvent less epoxy resin based compound
Coverage:	0.20 to 0.30kg/m ² /coat, two coats are recommended
Dry film thickness:	150 M to 220 microns/coat



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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.

Failure to comply with the recommended storage conditions may result in premature deterioration of the product or packaging. For specific storage advice, consult BASF's Technical Services Department.

SHELF LIFE

Up to 12 months if stored according to manufacturer's instructions in unopened containers.

SAFETY PRECAUTIONS

As with all chemical products, care should be taken during use and storage to avoid contact with eyes, mouth, skin and foodstuffs. Treat splashes to eyes and skin immediately. If accidentally ingested, seek immediate medical attention. Keep away from children and animals. Re-seal containers after use. For further information, refer to material safety data sheet.

NOTE

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

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

QUALITY STATEMENT

All products manufactured by BASF Egypt, or imported from BASF affiliate companies worldwide, are manufactured to procedures certified to conform to the quality, environment, health & safety management systems described in the ISO 9001:2008, ISO 14001:2004 & OHSAS 18001:2007 standards.

* Properties listed are based on laboratory controlled tests.

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