

# MasterProtect<sup>®</sup> 185

A non-toxic solvent free high build, protective epoxy resin coating especially designed for spray application

## DESCRIPTION

**MasterProtect 185** is a protective high build epoxy resin coating specifically developed to protect concrete. Supplied as a two-component system comprising pigmented base and a hardener in 1:1 by volume to produce an easily sprayable and chemical resistant finish.

It is solvent free and can be used with safety in small rooms or tanks without the need to provide special ventilation. **MasterProtect 185** coatings will not support the growth of bacteria.

## TYPICAL APPLICATIONS

- On precast pipe-linings
- External pipe coating

## ADVANTAGES

- Durable
- Non-toxic
- Waterproof and protective
- Chemical resistance
- Solvent free
- High build coating

## PACKAGING AND COLORS

**MasterProtect 185** is supplied in 400 L units and available in Dark Grey and Black.

**MasterProtect 185** is supplied in two pre-weighed components, base and reactor. No additions or omissions are required.

## TYPICAL PROPERTIES\*

Working life at 25°C	30 min
Mixed density at 25°C	1.35 g/cm <sup>3</sup>
Initial cure	24 hours @ 25°C
Final cure	7 days @ 25°C
Total dry film thickness	Min 400 microns
Bond to concrete ASTM D4541	2 N/mm <sup>2</sup>
Water absorption ASTM D570	After immersion – Nil After immersion and boiling – 0.1%
Abrasion resistance ASTM D4060 (CS10 Wheel, 1000g, 1000 cycles)	<50 mg
Resistance to bacterial growth	Resistant
Resistance to fungal growth	Resistant
Resistant to chloride ion penetration AASHTO T259 & 260	Resistant
Resistance to sulphate ion penetration – AASHTO T259	Resistant

## APPLICATION GUIDELINES

### SURFACE PREPARATION

The substrate should be a smooth or semi-smooth sound concrete surface. It is most important to ensure that thorough surface preparation is undertaken prior to application of the **MasterProtect 185** coating.

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 Master Builders Solutions **MasterEmaco** or **MasterBrace** repair systems. Ensure all blow holes and surface imperfections are made good prior to application of the **MasterProtect 185** coating.

Contamination by oil, grease, fats etc. must be removed before other forms of preparation begin.

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## PLACING / APPLICATION

**MasterProtect 185** coating can be applied using good quality rollers or short haired brushes or preferably by automated airless spray equipment.

Prior to the application of each coat the surface should be examined for signs of pin-holing, etc. Where pin-holing is evident these should be filled using **MasterBrace ADH 2200** thixotropic epoxy resin filler.

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.

For application by airless spray, use a 45:1 or higher ratio pump, minimum 9mm dia hoses and HD tip 19-23 thou. Automated spray equipment needs to be calibrated and suitable nozzle used.

### Overcoating

Where areas need to be overcoated 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 overcoating as for new work.

### Appearance and finish

High gloss, heavy bodied, ultra dense surface. Hygienic and easily cleaned.

## CLEANING

All equipment must be cleaned immediately after use with a suitable thinner (Xylene / MEK / Acetone). Similar cleaning procedures should be adopted for break periods exceeding 15 minutes duration.

## COVERAGE / YIELD

5m<sup>2</sup> / L / coat @ 200 microns wft, two coats are recommended.

Total dry film thickness - Min 400 microns

## STORAGE AND SHELF LIFE

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 3 months for 400 L packs, in unopened containers stored under normal warehouse conditions, below 35°C.

Failure to comply with the recommended storage conditions may result in premature deterioration of the product or packaging. For specific storage advice consult Master Builders Solutions Technical Services Department.

## HEALTH AND SAFETY

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. Reseal containers after use. For further information, refer to material safety data sheet.

## QUALITY AND CARE

All products originating from Master Builders Solutions Dubai, UAE facility are manufactured under a management system independently certified to conform to the requirements of the quality, environmental and occupational health & safety standards ISO 9001 and ISO 14001.

\* Properties listed are based on laboratory controlled tests.

® = Registered trademark of the MBCC Group in many countries.

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## STATEMENT OF RESPONSIBILITY

The technical information and application advice given in this Master Builders Solutions publication are based on the present state of our best scientific and practical knowledge. As the information herein is of a general nature, no assumption can be made as to a product's suitability for a particular use or application and no warranty as to its accuracy, reliability or completeness either expressed or implied is given other than those required by law. The user is responsible for checking the suitability of products for their intended use.

## NOTE

Field service where provided does not constitute supervisory responsibility. Suggestions made by Master Builders Solutions either orally or in writing may be followed, modified or rejected by the owner, engineer or contractor since they, and not Master Builders Solutions, are responsible for carrying out procedures appropriate to a specific application.

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