

MasterProtect[®] 180SP

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

DESCRIPTION

MasterProtect 180SP 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, it requires only on-site mixing to produce an easily applied decorative and chemically resistant finish. **MasterProtect 180SP** 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 180SP coatings will not support the growth of bacteria.

TYPICAL APPLICATIONS

For the internal protection of concrete tanks containing drinking water, certain chemicals, oils and fuel. Contact your Master Builders Solutions representative for further advice.

As an impervious, resilient and chemically resistant floor or wall coating in food manufacturing plants, breweries, canning and bottling factories. As a 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.

ADVANTAGES

- Durable
- Non-toxic
- Waterproof and protective
- High chemical resistance
- High temperature water resistance
- Solvent free
- High build coating
- Sprayable which should be applied using suitable airless spray equipment only

PACKAGING

MasterProtect 180SP (Sprayable version) is supplied in 10 kg units.

STANDARDS

BS 6920 Part 2 for suitability of potable water @ 50°C.

TYPICAL PROPERTIES

Mixed density at 25°C	1.5 g/cm ³
Working life at 25°C	40 min
Initial cure @ 25°C	24 h
Final cure @ 25°C	7 days
Coverage	0.3-0.6 kg / m ² / coat
Total dry film thickness	Min 400 microns
Bond to concrete ASTM D7234	>1.5 N/mm ²

APPLICATION GUIDELINES

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 180SP** 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 Master Builders Solutions **MasterEmaco** or **MasterBrace** repair systems. Ensure all blow holes and surface imperfections are made good prior to application of the **MasterProtect 180SP** 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 blow holes, by light grinding, high-pressure water jetting (>200 BAR) or light grit blasting (if permitted).

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MIXING

MasterProtect 180SP consists of two pre-weighed components, base and reactor. No additions or omissions are required. Add reactor contents to the base component and mix thoroughly for using a slow speed drill fitted with a suitable mixing paddle until a uniform streak free colour is achieved. **NO SOLVENT SHOULD BE ADDED.**

PLACING / APPLICATION

MasterProtect 180SP coating can be applied using airless spray. It is recommended that **MasterProtect 180SP** 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 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.

Use a high-pressure spray pump (piston or diaphragm) with a Ø9 mm delivery hose and HD tip 19-23 thou. Tip size will require confirmation on site depending upon equipment performance and spray pattern etc. Follow the spray equipment manufacturers guideline re hose lengths and pressures, etc.

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 sandpaper to give an adequate key. Completely strip off any unsound coating and proceed with overcoating as for new work.

Chemical resistance

MasterProtect 180SP is resistant to intermittent spillages of the following typically encountered chemicals:

- Formaldehyde, 40% solution
- Sulphuric Acid, 50% solution
- Hydrochloric Acid, 50% solution
- Hydrochloric Acid 5% solution
- Lactic Acid, 50% solution
- Nitric Acid, 10% solution
- Sodium Hydroxide, 50% solution
- Diesel oil
- Wine
- Sea and brackish water
- Aviation hydraulic fuels (Skydrol)
- Vegetable oils

Note: Higher concentration of mineral acids may cause matting of the surface and colour changes.

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.

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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.

The shelf life is 12 months when stored as above.

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.

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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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