

MASTERSEAL® 180

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

DESCRIPTION

MASTERSEAL 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. It will produce a highly glossy, heavily bodied, ultra dense surface.

MASTERSEAL 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. **MASTERSEAL 180** coatings will not support the growth of bacteria.

MASTERSEAL 180 is approved by Water Research Council for use with potable water.

FIELDS OF APPLICATION

- 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.
- 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.

FEATURES AND BENEFITS

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

TYPICAL PERFORMANCE DATA

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

- Formaldehyde, 40% solution
- Sulphuric Acid, 50% solution
- Hydrochloric Acid, 50% solution
- Lactic Acid, 50% solution
- Nitric Acid, 10% solution
- Sodium Hydroxide, 50% solution
- Diesel oil
- Wine
- Sea and brackish water

- Aviation hydraulic fuels
- Vegetable oils

PROPERTIES

Colour:	Light and Dusty Grey
Pot life at 30°C:	30 minutes
Mixed density:	1.6gm/cm ³ at 25°C
Tack free time:	Approx. 4 hours at 35°C
Initial cure:	12 hours at 30°C
Final cure:	4 days at 30°C
Bond to concrete:	In excess of the cohesive strength of concrete

APPLICATION

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 **MASTERSEAL 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 EMACO or CONCRESEIVE repair systems. Ensure all blow holes and surface imperfections are made good prior to application of the **MASTERSEAL 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 blow holes, 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 de-scaling guns, tap hammers, 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 **MASTERSEAL 180**.

Mixing:

MASTERSEAL 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 for using a slow speed drill fitted with a suitable mixing paddle until a uniform streak free colour is achieved.

Placing:

MASTERSEAL 180 coating can be applied using good quality rollers or short haired brushes or by airless spray. It is recommended that **MASTERSEAL 180** coating be

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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 CONGRESIVE 1438 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.

Airless spray

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

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.

CLEANING

All equipment must be cleaned immediately after use with CLEANING SOLVENT NO. 2. Similar cleaning procedures should be adopted for break periods exceeding 15 minutes duration.

ESTIMATING DATA

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

Coverage: 0.29 to 0.40 kg/m²/coat, two coats are recommended

Dry film thickness: 180 to 240 microns/coat

PACKAGING

MASTERSEAL 180 is supplied in 5kg units.

SHELF LIFE

MASTERSEAL 180 can be kept for 12 months from date of manufacturing if stored 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 Construction Chemicals representative.

PRECAUTIONS

For detailed Health, Safety and Environmental recommendations, please consult and follow all the instructions on the product Material Safety Data Sheet.

AN/Mseal180/v2/100609

STATEMENT OF RESPONSIBILITY

The technical information and application advice given in this **BASF Construction Chemicals** 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 **BASF Construction Chemicals** either orally or in writing may be followed, modified or rejected by the owner, engineer or contractor since they, and not **BASF Construction Chemicals**, are responsible for carrying out