

MasterProtect® 1812

Chemically resistant epoxy coating for marine, water handling structures and floors

DESCRIPTION

MasterProtect 1812 is a two component, solvent free, pitch free epoxy resin system to provide a high build coating that protects concrete and metal substrates from a wide range of aggressive chemicals

RECOMMENDED USES

- Sewage treatment tanks & clarifiers
- Effluent treatment tanks, drains, pipes
- Splash zone of off-shore structures.
- Structures exposed to sulphate attack
- Below ground protection to concrete & metal structures
- Chemically resistant flooring for the food and beverage installations
- Suitable for surfaces in contact with potable water

FEATURES AND BENEFITS

- **Resists abrasion** - suitable for contact with grit containing streams
- **Suitable for both industrial, marine and food and beverage environments** - resistant to a broad spectrum of chemicals
- **Two colours** - for on-site QA
- **Adheres to damp surfaces** – suitable for marine environments
- **Easy application** – brush, roller or spray

PROPERTIES

| | |
|---|--|
| Colours | Light and dark grey viscous liquid |
| Volume Solids | 100% |
| Mixed density | 1.65 kg/litre |
| Mixed Viscosity | 6000 cps at 25°C |
| Mixing Ratio, by weight | 5:1 |
| Pot life | 30 Minutes at 25°C 15 Minutes at 40°C |
| Touch dry | 2 Hours at 25°C |
| Recoatable | 4-6 Hours at 25°C |
| Final cure | 5 Days at 30°C |
| Adhesion, ASTM D 4541 | >2.5 MPa (concrete failure) |
| Abrasion Resistance, (ASTM D4060, CS17 wheel) | 17 mg / 1000 cycles |
| DFT, in two coats | 300 microns |

| | |
|---|--|
| Resistance to aggressive environment Exposure to accelerated weathering (ASTM D4587-91) | No cracking No blistering No flaking |
| AS/NZS 4020 potable water suitability | Approved |

STANDARDS

ASTM C881, Type III, Grade 2, Class C.

APPLICATION

Surface preparation

It is most important to ensure that thorough surface preparation is undertaken prior to application of the **MasterProtect 1812** coating.

Concrete

Ensure concrete is at least 28 days old and sound. Oil, grease, mould release agent, curing membrane, and such other contaminants must be removed by high pressure water blasting or other suitable mechanical methods. Even out all unevenness such as blowholes, pin holes and other surface defects with **MasterBrace 1444** before application of coating.

If water is seeping out of the wall, it is necessary to stop the leakage before coating. For advice on the appropriate method for the site situation, contact BASF. For damp substrates the material maybe diluted with 10% **MasterSeal 955** to give a better key or use **MasterBrace 1444**. Apply next coats within 24 hours or when tack free.

Depending on desire apply either the light or dark grey colour first and do second coat with the opposite colour. This will provide a visual clue to the correct thickness of the coating.

It is important to note that the final finish obtained is entirely dependent on the surface finish of the substrate.

Steel

Remove all previous surface treatments and corrosion products by sand/shot blasting to SA 2½ finish or to bright metal finish. Application of **MasterProtect 1812** should be straight after the steel preparation to prevent surface rusting. Depending on desire apply either the light or dark grey colour first and do second coat with the opposite colour. This will provide a visual clue to the correct thickness of the coating.



We create chemistry

MasterProtect® 1812

Mixing

MasterProtect 1812 is supplied in pre-proportioned kits for complete mixing. Properly stir each component separately before mixing together to ensure uniform consistency. Add the Part B to the Part A container and mix for 3 minutes with slow speed (300-600rpm) drill until homogeneous colour scraping the sides of the container to ensure a complete mixing.

Keep the paddle below the surface to avoid entrapping air. Do not mix by hand.

Application

MasterProtect 1812 can be applied using short nap roller, shorthaired brushes or by airless spray. Apply in two coats, each at a W.F.T. of 250 microns, the second coat applied after the first coat has dried (4-6 hours at 25°C) and at right angles to it. Should the application of second coat be delayed, abrade the previous coat to give an adequate mechanical key and wipe with a suitable solvent before the application. If a delay is expected, then a light broadcast of fine sand will provide a suitable key for the subsequent coat.

ESTIMATING DATA

MasterBrace 1444 (if required) should be applied at a rate of 150 to 300 microns per coat depending on surface profile. A 5 litre kit will yield 5m² at 1mm thick.

A 5 litre kit will yield from 30m² at 150 microns thick to 15 m² at 300 microns thick

MasterProtect 1812 a 6 kg pack yields 3.6 L on mixing.

This will coat 3.6 m² at 1mm thick

3.6L will coat 24m² at the recommended thickness of 150 microns.

It is recommended to apply a minimum of two coats.

Actual coverage depends on the numbers of coats, surface profile, loss and wastage.

| MasterProtect 1812 | | | | |
|--------------------|---------------------------------|----------------|----------------------|------------------------------|
| L | Thickness in mm /m ² | m ³ | kits /m ³ | m ² /mm thickness |
| 3.6 | 3.6mm | (0.0036) | 278 | 3.6 m ² |

PACKAGING

MasterProtect 1812 is available in 6kg packs

SHELF LIFE

MasterProtect 1812 has a shelf life of 12 months. Store out of direct sunlight, clear of the ground on pallets protected from rainfall.

PRECAUTIONS

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

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STATEMENT OF RESPONSIBILITY

The technical information and application advice given in this BASF 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 either orally or in writing may be followed, modified or rejected by the owner, engineer or contractor since they, and not BASF, are responsible for carrying out procedures appropriate to a specific application.

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