

MasterProtect[®] 1870

Phenol Novolac Epoxy Amine cured for top coat

DESCRIPTION

Highly cross-linked 100% solids epoxy coating with exceptional chemical resistance. Can be used as a top coat or body coat for lining system to protect concrete and steel in the waste water treatment, petrochemical industry and for industrial coatings. Can also be applied as an Anti-Slip system.

RECOMMENDED USES

- Internal protection of concrete or metal tanks containing certain chemical and oil waste
- Waste treatment in oil refineries, paper mills, power stations, garages, hospitals, sugar refineries, aircraft hangars, laboratories, abattoirs and most other liquid waste containment areas.

FEATURES AND BENEFITS

- **High gloss and Ultra dense surface** – easy to clean
- **Durable with Excellent chemical resistance** – unaffected by regular chemical and contaminant contact
- **Solvent free** - High build coating no loss of thickness during cure.
- **Easy application** - brush, roller or spray

Colour

Standard colours are red and grey

PROPERTIES

MasterProtect 1870 is resistant to intermittent spillages of the following typically encountered chemicals:

Sulfuric Acid	98%
Sodium Hydroxide	50% solution
Nitric Acid	30%
Skydrol	100%
Benzene	100%
Ethanol	100%
Acetic Acid	50%
Chlorinated water	1000ppm
Phenol	85%
Lactic Acid	50%

For other chemicals and duration of resistance, please consult Master Builders Solutions

Volume Solids	100%
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VOC	Nil
Mixed density at 25°C :	1.196g/cm ³
Pot life	
• 25°C	12.5 minutes
• 40°C	5 minutes
Recoat Interval	
• 25°C	90 – 180 minutes
• 40°C	45 – 70 minutes
Initial cure	24 hours @ 25°C
Final	cure 7 days @ 25°C
Bond to concrete:	>1.5 MPa

APPLICATION

Surface preparation:

Previous Coating Application

The **MasterProtect 1870** must be applied within the recoat interval of the previous coating application. If the recoat interval is missed then the previous coat must be solvent wiped, then thoroughly abraded to give an adequate mechanical key and solvent wiped again.

Concrete Substrates

Concrete must be structurally sound and fully cured for minimum of 28 days. Remove curing and release compounds and floor coatings in accordance with the manufacturer's instructions. Mechanical surface profiling is the method of surface preparation for both new and existing substrates. Mechanically profile the substrate to CSP 3 (approximating medium-grit sandpaper) as described by the International Concrete Repair Institute. Do not use acid etching for surface preparation.

Do not use any method that will leave fractured concrete in place. Arises shall be rounded off and surface protrusions shall be ground down to ensure a smooth substrate. Larger cavities shall be filled with appropriate MasterBrace epoxy repair mortars

Steel Substrates

Steel substrates shall be prepared to SSPC- SP6 with a surface profile 50-75 micron. Do not allow the prepared surface to reoxidise prior to applying the primer.

Priming & Filling

All previously uncoated substrates must be primed with MasterProtect 1801. Defects such as pin holes shall be filled with a suitable cementitious or epoxy repair mortar.

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Mixing:

Mix all of part A **MasterProtect 1870** with all of **MasterProtect 1870** part B until a uniform streak free colour is achieved using a slow speed (350 rpm) drill fitted with a suitable mixing paddle for 1 minute

Application:

MasterProtect 1870 coating can be applied using good quality rollers or short haired brushes or by plural component airless spray. It is recommended that **MasterProtect 1870** coating be applied in a minimum of two coats of 0.150l/m² (0.180kg/m²) each. It is recommended that the coats be of contrasting colours to ensure complete coverage. Additional coats may be required for harsh conditions or increased service life. 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 **MasterProtect 1810**. Each coat must be applied within the recoat interval of the previous application. If the recoat interval is missed then the previous coat must be solvent wiped, then thoroughly abraded to give an adequate mechanical key and solvent wiped again.

Airless spray:

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

Repair and Maintenance

Where areas need to be over coated due to damage etc. it is important that the areas to be treated are solvent wiped, abraded using a stiff rotary wire brush or coarse sand paper to give an adequate key and solvent wiped again.

Completely strip off any unsound coating and proceed with over-coating as for new work.

ESTIMATING DATA

Using two coats of 150ml per meter per coat one kit will cover approximately 13 square meters'

PACKAGING

MasterProtect 1870 is supplied in 4 litre (4.78 kg) units.

SHELF LIFE

MasterProtect 1870 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 Master Builders Solutions Material Safety Data Sheet (MSDS) from our office or our website.

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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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