

MASTERSEAL® TC1870

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.

RECOMMENDED FOR

For the internal protection of concrete or metal tanks containing certain chemicals, oils and fuel particularly in oil refineries, paper mills, power stations, garages, hospitals, sugar refineries, hangars, laboratories, abattoirs and most other liquid containment areas.

CHEMICAL RESISTANCE

Masterseal TC1870 is resistant to intermittent spillages of the following typically encountered chemicals:

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

For other chemicals and duration of resistance, please consult BASF's Technical Services Department.

FEATURES AND BENEFITS

- High gloss
- Durable
- Ultra dense surface
- Hygienic and easily cleaned
- Non-toxic
- Excellent chemical resistance
- Solvent free
- High build coating
- Easily applied by brush or roller

COLOURS

Standard colours are red, grey, brown, white, black and yellow.

TECHNICAL DATA

Solids Content	99%
VOC	1.0 g/L
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

PACKAGING

Masterseal TC1870 is supplied in 4 litre (4.78kg) units.

APPLICATION

Surface preparation:

Previous Coating Application

The **Masterseal TC1870** 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 other surface hardeners 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.

Corners shall be rounded off and surface protrusions shall be ground down to ensure a smooth substrate. Larger cavities shall be filled with appropriate epoxy repair mortars, i.e. **Concresive 2200** or **Concresive ERL**.

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 **Masterseal P1801**. Defects such as pin holes shall be filled with **Masterseal F1810**.

Mixing:

Masterseal TC1870 is supplied in two preweighed components, base and reactor. No additions or omissions are required. When the coating is to be applied by roller or brush add reactor contents to the base component and mix thoroughly for using a slow speed (350 rpm) drill fitted with a suitable mixing paddle for 1 minute and until a



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uniform streak free colour is achieved. No part mixing is permitted, use only full sets.

Application:

Masterseal TC1870 coating can be applied using good quality rollers or short haired brushes or by plural component airless spray. It is recommended that **Masterseal TC1870** coating be applied in a minimum of two coats of 0.150l/m² (0.175kg/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 **Masterseal F1810**. Prime the surface with **Masterseal P1810** prior to coating with **Masterseal TC1870**.

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 overcoated 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 overcoating as for new work.

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

CLEAN UP

All equipment must be cleaned immediately after use with acetone. Similar cleaning procedures should be adopted for break periods to suit the pot life of the material.

STORAGE

Store under cover out of direct sunlight and protect from extremes of temperature and do not exceed 40°C. 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 advices consult **BASF's** Technical Services Department.

PRECAUTIONS

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. Mixed material should be sprayed or poured out into trays and brushed or rolled before the pot-life of the material. Do not leave mixed quantities beyond 300grams (200ml) to sit for prolonged time or exposed to high temperatures as this can cause exothermic reaction to occur and excessive smoking. If smoking of the product should occur, quickly fill it with sand and remove it to a well ventilated area. Do not breathe in the smoke. Reseal containers after use. For further information, refer to material safety data sheet.

Note

Field service, where provided, does not constitute supervisory responsibility. For additional information contact your local **BASF** representative.

BASF reserves the right to have the true cause of any difficulty determined by accepted test methods.

C/Mseal TC1870/1/1010

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. **BASF Construction Chemicals data sheets are updated on a regular basis and it is the user's responsibility to obtain the most recent issue.**

NOTE

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