

MASTERSEAL[®] BC1830

A non-toxic solvent free high build self-smoothing phenol novolac protective epoxy overlay system for concrete and steel floors

Description

MASTERSEAL[®] BC1830 is a protective high-build glass flake reinforced phenol Novolac epoxy floor coating specifically developed to protect concrete and steel floors. Supplied as a two component system comprising of pigmented base and a hardener it requires only on-site mixing to produce a self-smoothing chemical resistant finish.

Typical applications

For the internal protection of horizontal surfaces 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[®] BC1830 is resistant to intermittent spillages of the following typically encountered chemicals:

- Sulfuric Acid Concentrated
- Lactic Acid - 50%
- Acetic Acid - 50%
- Acetone
- Benzene
- Phenol - 85%
- Ethanol – 100%

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

Features & Benefits

- Solvent free
- Excellent wear and abrasion resistance
- Easily applied
- Smooth high gloss finish for hygienic applications
- Easily cleaned
- Excellent chemical resistance
- Colourful - improves the working environment

Colour

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

*Typical properties

Volume Solids	100%
VOC	Nil g/L
Mixed density at 25°C :	1.182 g/cm ³
Pot life	
• 25°C	12.5 minutes
• 40°C	5 minutes
Recoat Interval	
• 25°C	60 – 90 minutes
• 40°C	35 – 45 minutes
Initial cure	24 hours @ 25°C
Final cure	7 days @ 25°C
Bond to concrete:	>1.5 MPa
Compressive Strength	4 hours >40 N/mm ²
ASTM D695	8 hours >60 N/mm ²
	12 hours >70 N/mm ²
	7 days >80 N/mm ²
Flexural Strength	40 N/mm ²
ASTM C580	
Abrasion Resistance	80 mg / 1000 cycles
ASTM D4060 – CS17	



The Chemical Company

MASTERSEAL[®] BC1830

Packaging

MASTERSEAL[®] BC1830 is supplied in 8 litre (9.46 kg) units.

Application procedure

Surface preparation:

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.

Arrises 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. CONCRETSIVE 2200 or CONCRETSIVE 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.

Sealing & Filling

It is essential to seal the concrete surface with MASTERSEAL P1801 prior to the application of MASTERSEAL[®] BC1830. This will help to prevent air from the substrate rising through the MASTERSEAL[®] BC1830 while it sets.

Defects such as pin holes and rough substrates shall be filled with MASTERSEAL[®] F1810.

Mixing:

MASTERSEAL[®] BC1830 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 (350 rpm) drill fitted with a suitable mixing paddle for 1 minute and until a uniform streak free colour is achieved.

Application:

Please refer to the MASTERSEAL[®] 1830 system method statement for precise application instructions.

MASTERSEAL[®] BC1830 coating can be applied using a v-notched trowel or pin screed.

Theoretical Coverage

One 8.0liter unit will cover approximately 8.0m² at 1.0mm dry film thickness. Please refer to the method statement for the Masterseal BC 1830 for full build ups.

If a subsequent coat is required then it 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.

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

Equipment care

All equipment must be cleaned immediately after use with acetone. Similar cleaning procedures should be adopted for break periods exceeding the stated pot life as stated within the typical properties section.

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.

Safety 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.

Quality and care

All products originating from BASF's 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, ISO 14001 and OHSAS 18001.

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* Properties listed are based on laboratory controlled tests.

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