

MASTERSEAL[®] BC 1880

A non-toxic two component flexible epoxy coating

Description

MASTERSEAL BC1880 is a pigmented, flexible epoxy coating designed to offer a flexible seamless membrane and durable protection at applied dry film thicknesses of between of 0.20mm to 1.0mm by itself. It can also be top coated with some of the MASTERSEAL 1800 series protective topcoats.

Slip resistant finishes of 0.50 to 2.0mm thick can be achieved.

Primary uses

MASTERSEAL BC1880 exhibits excellent wear abrasion, flexibility and moderate chemical resistance and is suitable for use in a wide variety of industrial and commercial applications. It can be used to provide a surface coating with a high gloss hygienic finish or a slip resistant coating system.

MASTERSEAL BC1880 provides impermeable protection against common oils, greases, lubricants and hydraulic oils. As in all corrosive situations, a full analysis of operating and exposure conditions is required, followed by reference to chemical resistance data to ensure product suitability.

MASTERSEAL BC1880 can be used extensively in but is not limited to the following areas of application:

- Chemical manufacturing plants.
- Pharmaceutical and other medical facilities.
- Car production and showroom facilities.
- Aircraft hangers and maintenance areas.
- Warehouses with high density traffic.

- Food and beverage production areas.
- Vehicle movement areas.

Advantages

- Excellent wear and abrasion resistance.
- Crack bridging capability.
- Smooth high gloss finish for hygienic applications.
- Slip resistant finish in trafficable applications.
- Easy application by brush, roller or squeegee.
- Permanently flexible
- Breathable coating

*Typical properties

Laboratory tests carried out at 25°C	
Pot Life ASTM D2471 @ 25°C	65 mins
40°C	40 mins
Tack free time ASTM C679 @ 25°C	10h 30min
@40°C	5 hrs
Recoating time @ 25°C	11 – 25hrs
@40°C	5 – 11hrs
Mixed density ASTM D1475	1.5 approx.
Tensile strength ASTM D412	6.0 N/mm ²
Elongation ASTM D412	60%
Water Penetration	Nil
BS EN 12390 Part 8	
Abrasion Resistance ASTM D4060	62mg
CS17 wheel / 1000cycle / 1000g	
Volume Solids ASTM D 2697	86%
VOC	116g/L
Shore D ASTM D2240	25
Pull-off over concrete	Concrete failure
BS EN ISO 7500	
Pull-off over steel BS EN ISO 7500	Adhesive failure

Packaging

MASTERSEAL BC1880 is supplied in 10 litre packs.



The Chemical Company

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Colours

Available in standard colours and with colour matching or RAL / BS colours depending on quantity required. Contact BASF Construction Chemicals UAE LLC.

Guide to application

Remove all surface laitance, oil, grease or any defective concrete that will reduce the bond of the MASTERSEAL BC1880. Mechanically prepare the substrate using shotblasting or similar method to achieve a surface profile of to CSP 3 as specified by the International Concrete Repair Institute.

The surface to which the MASTERSEAL BC1880 is to be applied must be flat. Surface irregularities must be ground down and blowholes and pinholes filled out with MASTERTOP Filler 2200 or CONCREXIVE 2200.

After all preparation has been completed, ensure dust is removed from the surface. This is best achieved using an industrial vacuum.

Priming / Sealing:

When priming or sealing is required MASTERSEAL BC 1880 can be diluted with 10% Solvent No.2 by volume. This should not be included as part of the dry film thickness build-up.

Mixing:

Prior to application, MASTERSEAL BC 1880 should be stored undercover and protected from extremes of temperature in an air-conditioned environment immediately prior to application.

Add the entire contents of the reactor container into the base container and mix the two components for 2 minutes using a slow speed drill fitted with a suitable mixing head until all striations

have disappeared and a uniform colour is obtained.

Application:

MASTERSEAL BC 1880 should be applied with a short hair roller or brush at a wet film thickness of between 230µm – 600 µm. For best results do not apply MASTERSEAL BC1880 at a wet film thickness in excess of 400µm on vertical or overhead substrates.

For slip resistant finishes on horizontal substrates, broad cast MASTERTOP AGGREGATE SRA 3 at a rate of between 0.5-1.0kg/m² into the still wet penultimate coat. After initial cure, but within the re-coat interval, the excess aggregate should be removed by brushing or vacuuming. The top coat must be applied within the maximum over coating time period i.e. 25 hours at 25°C or 11 hours at 40°C.

Theoretical Coverage

Smooth finish

When applied in two coats of a wet film thickness of 230µm each, one unit of MASTERSEAL BC1880 will cover 21.5m² to achieve a dry film thickness of 400 µm.

Equipment care

Remove uncured MASTERSEAL BC1880 from tools and equipment using SOLVENT NO. 2. If MASTERSEAL BC1880 has cured then it can only be removed by mechanical means.

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Chemical resistance*

Fully cured MASTERSEAL BC1880 samples have been tested for chemical resistance to the following chemicals for 72 hours @ 25°C as per ASTM D 543.

Lactic Acid 5%	Resistant (colour change)
Citric Acid 5%	Resistant
Acetic Acid 5%	Resistant
Hydrochloric Acid 10%	Resistant (colour change)
Sulphuric Acid 10%	Resistant (colour change)
Nitric Acid 5%	Resistant (colour change)
Sodium Hydroxide 20%	Resistant
Ammonia 5%	Resistant
Petrol	Resistant
Mineral Oil	Resistant
Butanol	Resistant
Skydrol	Resistant
Saturated Sugar Solution	Resistant
Saturated Urea Solution	Resistant

Storage and shelf life

Store out of direct sunlight, clear of the ground and on pallets. Protect from rainfall. Avoid excessive compaction and protect from extremes of temperature.

Safety precautions

As with all chemical products, care should be taken during use and storage to avoid contact with eyes, mouth, skin and foodstuffs (which could be tainted during the curing/ drying phase of the product). Treat splashes to eyes and skin immediately. If accidentally ingested, seek medical attention. Reseal the containers after use.

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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As all BASF technical datasheets are updated on a regular basis it is the user's responsibility to obtain the most recent issue.

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