



# MCHB 100

**Two-component, heavy-duty, coal tar-based epoxy coating for steel and concrete**

**Pack Size  
20Kgs**

## TDS Technical Data Sheet



### Product Information

Form: Black, two-component coal tar epoxy coating Mixing Ratio: Component A B = 4:1 by weight

Handling & Storage: Store under cover, out of direct sunlight, and protect from extremes of temperature. In tropical climates, store in an air-conditioned environment. Failure to comply with the recommended storage conditions may result in premature deterioration of the product or packaging. Packaging: Available in 20 L unit pack comprising 16 kg of Comp A and 4 kg of Comp B.

Shelf Life: 12 months from the date of manufacture when maintained in protected storage in original unopened sealed condition at 5 - 38°C. Handling Precautions: As with all chemical products, 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. Reseal containers after use.

### Technical Characteristics at 28C, 50% RH

Property	Method	Result
Recommended Wet Film Thickness, micron	ASTM D 4414	150-200
DFT @ theoretical coverage 5 m <sup>2</sup> /L, micron	IS 101	125 ±10
Volume Solids, %	ASTM D 2697	65±5
Scratch Resistance	ASTM G 171	Up to 2.00 kg
Elongation, %	ASTM D 638	30-35
Tensile Strength, MPa	ASTM D 638	3-3.5
Shore A hardness after 7 days	ASTM D 2240	60 ±5
Density of Mix, gm/cc	ASTM D 1475	1.30 ±0.05

Flash Point, Component A	IS 101-1-6	>30
Flash Point, Component B	IS 101-1-6	>30
Pot Life, hrs., 100 gm. sample	ASTM D 2471	3.5-4
Adhesion pull-off, MPa on steel	ASTM D 4541	4-6
Resistance to Micro-organisms	ASTM G 21	Passes
Flexibility	ASTM D 522	1/8" passes
Weather-ability test, 1000 hrs. QUV	ASTM G 154	Passes
Immersion test, 30 days DIW, 1% H <sub>2</sub> SO <sub>4</sub> , 1% NaOH	AWWA C 210	No blistering/peeling/disbonding
Salt Spray, 500 hrs., @ 100 microns DFT	ASTM B 117	Passes
Water Resistance, Immersion- 7 days	ASTM D 870	Passes
Abrasion Resistance 1000 cycles, CS 17, mg loss	ASTM D 4060	110 ± 10
Dielectric strength, V/mil	AWWA C 210	250-260
Cathodic Disbondment, 30 days, mm	AWWA C 210	<10

## Application Temperature, C

Condition	Application	Surface	Ambient	Conditional	Continuous	Occasional
Minimum	10	10	10	95	-10	-25
Maximum	49	50	41	120		

## Curing Schedule

Temperature	Touch Dry hrs	Recoat, hrs	Full Cure, Days
30C (86°F)	8	8-30	7

## Field of Application

Corrosion-resistant coating for concrete and metal structures such as crude oil storage tanks, underground structures, dams, barrage gates, penstocks, foundation walls and sumps, sewage treatment plants, underground pipelines, splash zones in docks & harbors. Not recommended for surfaces in contact with potable water and other foodstuffs.

## Advantages

Low viscosity formulation helps in easy application by brush or spray. Flexible anti-corrosive/preventive coating for structures - MS or concrete - even where the structure is in continuous contact with water or submerged. Provides excellent resistance to corrosion, impact, thermal shock and abrasion. Cures to a hard, smooth, and flexible surface with excellent resistance to sea/salt water, oil, acids, alkalis, crude oil, and minerals. Compatible with cathodic protection.

## Application Information

Substrate Temperature: +10°C Min / +40°C Max

Ambient Temperature: +10°C Min / +40°C

Max Substrate Moisture Content: <5%

## Application Methodology

### Surface Preparation Steel:

blast cleaned to ISO-Sa22 and remove dust, flakes, oil, grease or other loose foreign particles. Application of MCHB 100 should be straight after steel preparation to prevent surface rusting. In case of new concrete, ensure the concrete is at least 28 days old and remove any loose foreign particles by compressed air. Ensure the ambient temperature is not less than 10°C and not more than 40°C at the time of coating. To avoid condensation of moisture onto the coating substrate prior to application, RH should not be above 80% and substrate temperature should be at least more than 3C above Dew point.

### Material Preparation

Stir drums of each component of MCHB 100 thoroughly to a homogenous and uniform mix with a slow speed stirrer fitted with a

suitable mixing paddle. Component A and B in a suitably sized container. Mix properly for 3-5 minutes with a slow speed stirrer until a homogeneous color is achieved. Keep the paddle below the surface to avoid entrapping air. Do not mix by hand. The temperature of the mixed base and hardener should preferably be more than 12C, otherwise extra thinner may be required to obtain application viscosity. Thinner addition results in reduced sag resistance, volume solid, and DFT. Apply the material as supplied, do not dilute with thinner.

**Application of Material**

Apply ZN40/ZN30 direct to metal immediately after blasting or prime surface with any epoxy primer. For better results, we recommend ZN 40 Zn Ph 60. Allow the primer to touch dry. Apply the first coat of MCHB 100 on the prepared surface by brush/roller spray. Allow it to touch dry as per our technical data sheet (depending on ambient condition). The second coat, if required, should be applied only after the first coat has dried (4-7 hours) at 30C. If the application of the second coat is delayed by 16 hours, abrade the previous coat to give an adequate mechanical key and wipe with a suitable solvent before application. In case of airless spray, use standard equipment having a pump ratio of 60:1 or higher, tip size of 0.58 - 0.88 mm, and tip pressure 210 - 250 kg/cm<sup>2</sup>.

**Precautions**

Multiple coats may be required to achieve high dry film thickness. Common to all epoxies, this product will be subjected to chalking on prolonged exposure to sunlight. However, this phenomenon is not malefic to coating performance. Exposure to very low temperature, high humidity, rain, and water ponding during and after application may lead to incomplete curing and the above-mentioned coating properties may not be achieved. Additional losses, wastage, surface profile, ambient conditions should also be taken into consideration while correlating paint consumption and achieved DFT in case of field application.

**Value Base of Product Data**

All technical data stated in this Product Data Sheet are based on laboratory tests. Actual measured data may vary due to circumstances beyond our control and different test methods.

**Health and Safety Information**

For information and advice on the safe handling, storage, and disposal of chemical products, users shall refer to the most recent Material Safety Data Sheet. This product contains coal tar. Avoid contact with eyes and skin. Wear suitable protective clothing such as overalls, goggles, dust mask, and gloves. Ensure that there is adequate ventilation in the area where the product is being applied. Do not breathe in vapor or spray mist. This product is flammable. Keep away from sources of ignition. Take precautionary measures against static discharge. In case of fire, blanket flames with foam, carbon dioxide, or dry chemicals. Eye protection during application is recommended. In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. In case of skin contact, wash with soap and plenty of water. Get medical attention if irritation develops or persists.

**Cleaning & Maintenance**

Clean all tools immediately after use with AC Thinner. Do not allow the material to harden.

**Pack Size**

20Kgs

**Data Reliability**

All technical data provided in this document are based on laboratory tests. Actual performance may vary due to factors beyond our control.

**Regional Compliance**

Product specifications may vary based on local regulations. Please refer to the local Product Data Sheet for precise information.

**Legal Disclaimer**

The information and recommendations regarding the application and end-use of Carbolink products are provided in good faith based on our current knowledge and experience. Due to variations in materials, substrates, and actual site conditions, no warranty of merchantability or fitness for a specific purpose can be inferred. The user must determine the product's suitability for the intended application. Carbolink reserves the right to change the properties of its products. All proprietary rights of third parties must be observed. Orders are subject to our current terms of sale and delivery. Always refer to the most recent local Product Data Sheet, available upon request.