

Chembase- AR

2-component acid-resistant self-leveling coal tar epoxy coating for acid-proof tile bedding and metal coating. It has excellent chemical resistance properties for effluents, sewage, salty water, and organic/inorganic acids & alkalis

Product Description

Chembase-AR is a specially formulated 2-component self-leveling coal tar epoxy mortar. It has excellent chemical resistance properties for effluents, sewage, salty water, and organic/inorganic acids & alkalis. It is specially formulated as a tile bedding mortar before the laying of acid-proof tiles. It is also used as an anticorrosive & protective coating for metal and concrete structures.

Uses

- Sewage & Effluent Treatment Plants
- Thermal Power plants - Water intake & outlet channels, ash ponds, coal handling units, etc.
- Cross-country underground pipelines
- Molasses tanks in the sugar industry
- Storage tanks in the fertilizer, petrochemical industry, refineries, etc.
- Cooling towers
- Foundation protection from contaminated soil, backfill, and water
- Sluice gates
- Industrial flooring in chlor-alkali plants

Salient Features:

- Excellent resistance to salt water, alkali, acid solutions.
- Excellent adhesion to concrete, asbestos & metallic surfaces.
- Good corrosion & abrasion resistance.

Product Data

Appearance / colour:	Chembase AR Resin: Chembase AR Hardener: Aggregate AG80	Black Brownish liquid Whitish Powder
Storage conditions /shelf life	24 months from date of mfg. if stored properly in undamaged seal packaging, at a temperature between 5 °C- 30 °C. It should be kept in a cool, well-ventilated area, away from heat, direct sunlight, sparks, and children.	

Chemical Resistance

Excellent resistance is observed against distilled water, detergent solutions, alkalis and acids, and salt water.

Mechanical /Physical properties

Physical properties of CHEMBASE AR

Property	Test Method	Value and Unit
Mixing Ratio [Resin: Hardener] For 200 micron clear primer	2:1 on volume basis. 2 parts Chembase AR[R] and 1 part Chembase AR[H]	Volume basis.
Mixing Ratio [Resin:Hardener: Aggregates] For a 1000 micron screed	2:1:3.7 2 parts Chembase AR[R] 1 part Chembase AR[H] and 3.7 parts Aggregate AG80	Volume basis.
Mixing Ratio [Resin:Hardener: Aggregates] For a 2000 micron screed	2:1:4.75 2 parts Chembase AR[R] 1 part Chembase AR[H] and 4.75 parts Aggregate AG257	Volume basis.
Surface Finish	CPI 1001*	Non porous, Smooth.
Pot Life @ 30 C	CPI 1002	30-35 minutes
Surface Dry	CPI 1002	2 hours
Hard Dry [Open for foot traffic]	CPI 1002	24 Hours
Full Cure [Vehicular Movement]	CPI 1002	72 Hours
Compressive strength	ASTM C 579	>550 Kg/cm ²
Flexural Strength	ASTM C 580	>450 Kg/cm ²
Tensile Strength	ASTM C 307	>160 Kg/cm ²

Pull off Adhesion test	ASTM D 4541	Concrete Failure @ 18 Kg/cm ²
Abrasion Resistance[Taber]	ADTM D 4060	45 mg loss
Shore Hardness	ASTM D 2240	D 75
Shelf Life	-	12 months in the original unopened Container when stored between 5- 40 °C

Method of Application

All Chemsol Products are recommended to be applied only by Approved Applicators and should be used after using proper PPEs like Gloves, mask, goggles, etc.

Substrate Quality

The CDS (clean, dry, sound) test must be conducted before the application of primer to the concrete substrate. The substrate must be free of all contaminants such as dirt, oil, grease, coatings, and surface treatments, etc. If in doubt, apply a test area first.

Application conditions



Substrate temperature: 10-40 °C



Substrate moisture content: - <5%



Relative humidity: 80%max

Note: The substrate temperature must be at least 30C above the prevalent dew point temperature to reduce chances of condensation on the floor.

Substrate Preparation

Concrete substrates must be prepared mechanically using abrasive blast cleaning, Scarifying or grinding equipment to remove cement laitance and achieve an open textured surface. Remove weak concrete and expose surface defects such as blowholes and voids. Repairs to the substrate, filling of blowholes/voids, and surface levelling must be carried out using appropriate products. Ensure that the dust, loose and friable material is completely removed from all surfaces by brush and vacuum before application of the product.

The concrete substrate has to be primed or levelled with Chembase AR in order to achieve an even surface. Allow the primer to cure for 5-6 hours. After this, Mix Chembase AR Resin and Hardener in a ratio of 2:1 and add Aggregate AG80/AG257 in a prescribed ratio and mix for 2 minutes with a helical paint mixer. Visually ensure that the mixture has become homogeneous.

Immediately lay the mixture on the floor and spread it with a trowel to the desired thickness. Use a spike roller to deareate the coating.

Curing Schedule

The epoxy curing reaction rate is temperature dependent. Refer the following table to know how quickly the floor can be brought to service

Temp.(deg C)	Foot traffic	Full cure
10°C	48 hours	120 hours
20°C	36 hours	96 hours
30°C	24 hours	72 hours

Cleaning of Tools

Clean all tools and application equipment with thinner EP140 immediately after use. Hardened and/or cured material can only be removed mechanically.

Packing

Chembase AR Resin and Hardener is available in 20 liter and 5 liter plastic pails. Aggregate AG80 and AG 257 is available in 50 kg bags

Handling & Safety

Keep the containers tightly sealed when not in use. Avoid skin contact and inhalation of fumes (if any). While spraying, it is advised to wear a mask. If it comes in contact with the body, wash affected parts with plenty of soap and water. In case of persistent irritation, contact a physician.

Disclaimer: The Information provided is based on our experience, thorough investigations & sophisticated testing methods, but due to the vast number of applications and usage methods, Chemsol Polymer Industries cannot accept responsibility of any kind for any particular result. It is the responsibility of the user to verify the suitability of the product for their end use, and in accordance with the rules and regulations of that country /territory. All information provided pertaining to our products should be treated only as a guidance tool without any guarantee or warranty of any sort.

* All CPI test methods are our scientifically designed internal test methods which can be shared upon

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