

ABAGARD CR-300 TWO-COMPONENT CHEMICAL RESISTANT EPOXY MORTAR

DESCRIPTION

A two-component solvent-free, heavy-duty mortar based on epoxy resins and modified polyamine hardeners. ABAGARD CR-300 displays excellent corrosion and chemical resistance for tank lining, immersion and non-immersion services with just a single coat. The fully cured mortar possesses a very high compressive strength and a high resistance to abrasion.

ADVANTAGES

1. Solvent-free
2. Excellent chemical resistance against a wide range of Alkalis, inorganic acids, salts, solvents, oil and other corrosive materials
3. Excellent abrasion resistance
4. Excellent adhesion
5. Superior mechanical strengths
6. Cures without shrinkage

FIELD OF APPLICATION

1. Anti-acid tiling
2. Anti-acid tile grouting
3. Sealing horizontal and vertical surfaces which are exposed to increased chemical stresses and for heavy duty corrosion protection
4. Battery rooms
5. Food and dairy plants
6. Electrolysis tanks

SURFACE PREPARATION

Concrete should be cured for a minimum of 28 days prior to coating. The moisture content of the concrete should be below 4%. All surfaces should be clean, dry and free from curing compounds, release agents, trowelling compounds, surface hardeners, efflorescence, grease, oil, dirt, old coatings and loose or disintegrating concrete. All poured and precast concrete must also blasted, wire brushed or acid etched to remove laitance. Cracks, holes and honeycombs must be repaired prior to application.

MIXING

Open containers Component B and add entire contents to Component A. Mix thoroughly with an electric stirrer, taking care to entrain as little air as possible. Always mix such amount that shall be just sufficient to be used up within 30 minutes. Do not dilute the mixture.

Surface preparation shall not take place in following conditions:

- At temperature below 10 °C.
- When the surface temperature is less than 3 °C above dew the point.



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APPLICATION

Material is supplied in two containers as a unit. Always mix a complete unit in the proportion supplied. Once the unit has been mixed it must be used within the working pot life specified .

Combined entire contents of curing agent (part B) with base (part A) and mix thoroughly with slow speed power agitator (max. 300 rpm). Mix thoroughly for 2-3 minutes, scraping the container bottom and side to assure complete mixing. There is no induction or waiting time required after mixing before application.

The exothermic characteristic of epoxy curing reactions may cause rapid temperature rise of mixture, which result low workability of material. To obtain longer workability, the mixed adhesive may be divided into portions.

The material is applied using a plastering trowel in a maximum layer thickness of 4 mm in one work step. The application can carried out in multiple layers .

-In hot climate, material temperature should be 20 to 25 °C prior to mixing; otherwise pot life becomes very short .

-Do not thin for any reason

- There should be no standing water on concrete surfaces.

TECHNICAL PROPERTIES

Appearance	Black thixotropic paste
Mixing Ratio	1:1 (by weight)
Density (A+B)	Approx. 1.7 g/cm ³
Volume solid	100%
Amount required (kg/m ²)	~4
Application method	TROWEL
Adhesion to Concrete	> 2MPa (Concrete failure) According to ASTM D4541

DRYING TIME

Temperature	Touch dry	Over-coating		Full cure
		Min	Max	
15°C	18 hrs	72 hrs	5 days	15 days
25°C	6 hrs	24 hrs	3 days	7 days
35°C	4 hrs	18 hrs	2 days	4 days

POT LIFE

temperature	15°C	25°C	35°C
Pot life	70 min	55 min	30 min



PACKAGING

Pre-batched Part A+B: 5 + 5 kg units. 10 kg at total.

STORAGE & SHELF LIFE

Shelf life: 1 year in the original package

Storage condition: should be protected from direct sunlight and moisture. Keep containers in the temperature range between +10°C and +30°C.

HEALTH & SAFETY

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 (available on request) containing physical, ecological, toxicological and other safety-related data.

TECHNICAL SERVICE

The ABADGARAN INTERNATIONAL GROUP Technical Department is available to assist you in the correct use of our products and its resources are at your disposal entirely without obligation.

All data presented in this technical datasheet are based on our last researches in ABADGARAN CONSTRUCTION CHEMICALS laboratories and are just as a guide for choosing appropriate material. Therefore users should conduct a sufficient investigation to establish the suitability and conformity of any product for intended uses.

Chemical resistance guideline

ABAGARD CR-300 is resistant against chemical materials mentioned in below table based on ASTM C267

Substance**Temperature °C**

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Oils	25-60
Sodium hydroxide 10%	25-60
Sodium hydroxide 50%	25-60
Sulfuric acid 50%	25-35
Sulfuric acid 70%	25-35
hydrochloric acid 1%	25-60
Citric acid 10%	25-60
Citric acid 30%	25-35
Acetic acid 10%	25-60
Acetic acid 30%	25-35
Maleic acid 60%	25-60
Tartaric acid 60%	25-60
Ammonia 2%	25-60
Ammonia 10%	25-35
Hydrogen peroxide 5%	25-60
Hydrogen peroxide 50%	25-35
Acetone 10%	25-60
Acetone 100%	25-35
Aluminum chloride (Concentrated)	25-60
Aluminum hydroxide (Dilute)	25-60
Aluminum sulfate (Concentrated)	25-60
Ammonium sulfate (Concentrated)	25-60
Aniline 2%	25-60
Aniline 10%	25-35
Barium chloride (Concentrated)	25-60
Gasoline	25-60
Cholera benzene	25-60
Boric acid (Concentrated)	25-35
Butanol	25-60
Methanol	25-60



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Isopropanol	25-60
Methyl acetate	25-60
Calcium chloride (Dilute)	25-60
Calcium sulfate (Dilute)	25-60
Cyclohexanone	25-60
Iron(II) sulfate(Concentrated)	25-60
Ethanol 96%	25-60
Toluene	25-60
Xylene	25-60
Ethyl acetate	25-60
Phormaldehyde 10%	25-35
Glycerin (Concentrated)	25-60
Motor oil	25-60
Hydrazine 10%	25-60
Potassium hydroxide 10%	25-60
Potassium hydroxide 50%	25-60
Carbonic acid(Concentrated)	25-60
Magnesium chloride	25-60
Magnesium sulfate	25-60
Sodium carbonate (solution)	25-60
Sodium chloride (solution)	25-60
Sodium phosphate (solution)	25-60
Oxalic acid 25%	25-60
Phosphoric acid 10%	25-60
Phosphoric acid 50%	25-35
Sea water	25-60



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