ABAGARD-CRW
TWO-COMPONENT CHEMICAL RESISTANT EPOXY MORTAR

DESCRIPTION
A two-component solvent-free, high performance mortar based on epoxy resins and modified polyamine hardeners. ABAGARD-CRW exhibits excellent corrosion and chemical resistance for tank lining, immersed and non-immersed services with just a single coat. The fully cured mortar has very high compressive strength and high resistance to abrasion. This material is available in several colors.

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
7. Available in several colors

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 effective 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.
The compressive strength of the concrete substrate should be at least 3,500 psi (24 MPa) at 28 days and at least 215 psi (1.5 MPa) in tension at the time of application.

Surface preparation shall not take place in following conditions:
- At temperature below 10 ºC
- When the relative humidity is greater than 80%
- When the surface temperature is less than 3 ºC above the dew point

APPLICATION

Premix each component separately. Empty Component B (Hardener) in the correct mix ratio into Component A (Resin). Mix the combined components for at least 3 minutes using a low speed drill (300–450 rpm), scraping the container bottom and side to assure complete mixing and take care to entrain as little air as possible. There is no induction or waiting time required after mixing before application. Always mix such amount that shall be just sufficient to be used up within 30 minutes.

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 mortar may be divided into portions.

Depending on type of use and application, the material is applied using a plastering or comb trowel in a maximum layer thickness of 3 mm in one work step. The application can carried out in multiple layers.

- In cold temperatures, material temperature should be ~25 ºC prior to mixing;
- While applying the material, the substrate temperature shall maintain between 15 ºC to 35 ºC.
- Do not thin for any reason.
- There should be no standing water on concrete surfaces.

TECHNICAL PROPERTIES

Appearance	Part A: White Part B: Light Gray Mix: White Gray thixotropic paste
Mixing ratio (A:B)	1:1 (by weight)
Density (A+B)	Approx. 2 g/cm^3
Volume solid	100%
Amount required	~4 kg/m^2
Application method	Trowel
Adhesion to concrete	≥ 2 MPa (Concrete failure) According to ASTM D4541

DRYING TIME

Ambient temperature	Touch dry	Over-coating		Full cure
		Min	Max	
15°C	5 hrs.	24 hrs.	3 days	10 days
20°C	3 hrs.	12 hrs.	2 days	7 days
35°C	2 hrs.	6 hrs.	1 day	3 days

POT LIFE

Ambient temperature	15°C	20°C	35°C
Pot life	~180 min	~45 min	~20 min

PACKING

Package type is a set of 2 parts in Total of 10 kg (Part A: 5 kg bucket, Part B: 5 kg bucket)

STORAGE & SHELF LIFE

The shelf life is 6 months in the original packaging if unopened, stored free from frost, moisture and direct sunlight.
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.

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Chemical resistance guideline

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

Substance	Temperature °C
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**
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**

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Butanol	**25-60**
Methanol	**25-60**
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**