

CHEMIFIX PH
(Phenolic) Mortar

Chemifix PH is a carbon and silica filled Phenolic Resin Cement which resists all concentrations of non-oxidising acids; acidic salts and organic solvents. It is especially formulated to resist acidic, alkaline and also mixed acidic and alkaline conditions. **Chemifix PH** cement's most outstanding property is its remarkable resistance to Sulphuric acid both dilute & concentrated. Even concentrations upto 93% at room temperature will not attack **Chemifix PH**

Chemifix PH consists of an inert powder **Chemifix PH** (Powder) which is mixed with a Phenolic synthetic resin **Chemifix PH** (Resin), to produce a mortar, **Chemifix PH**, which is used to bond acid resisting bricks/tiles for anti-corrosive constructional work. **Chemifix PH** combines optimum working life with minimum hardening time.

Chemifix PH can economically solve the majority of corrosion problems. It is one of the most widely used corrosion proof cement in the country.

ALL RESISTANT LINING SYSTEM



PHYSICAL DATA

Tensile strength	: 600-700 lbs. per sq. in.
Compressive Strength	: 350 (kg/cm ²)
Temperature limit	: 170°C
Water Absorption (Max.%)	: 01
Mixing ratio	: Powder:Resin - 3 : 1 by wt.
Adhesion to unglazed ceramic ware	: 100-200 lb. per sq. in. Phenolic Resin should be stored in cold storage at about 27°C and used as early as possible preferably within 15 days.
Shelf life	: Phenolic powder should be used as early as possible and preferably within 45 days.

Application Area

Chemifix PH is widely used for bonding or pointing of bricks/tiles for anti-corrosive constructional work areas like Tanks, Channels, Floors, Foundations, Pits, etc.

Application Method

Chemifix PHP (Powder) and **Chemifix PHR** (Resin) are to be mixed in the ratio of 3:1 PBW very carefully in a clean, enamelled bowl. Mixing should be done by adding powder to Resin in small quantities. The Phenolic mortar (**Chemifix PH**) produced should be used up within 20 minutes from mixing. Some heat will be produced in the setting of Phenolic mortar, so it is important to spread the mixed Phenolic mortar in a thin layer. The hardening time will take upto 2 to 3 hours when the conditions are warm.

- All surfaces to which **Chemifix PH** mortar is to be applied must be dry, clean and rust free. No water, steam or acid should be allowed to come in contact with the mortar during setting and hardening.
- **Chemifix PH** should not applied directly to concrete surface or steel surface.
- Depending upon the chemical and operating conditions as well as the base structure (Concrete or steel) suitable non-porous Membrane / Inter-liner should be provided. Some of the suggested inter protective layers are Mastic, Rubber, FRP, Epoxy/Synthetic Screeds and FlexyVinyl Sheet (PVC). Membrane should be provided as per standard recommendations.
- Mixing ratio can be adjusted to about 10% according to site conditions.
- Always prepare that much quantity which can be consumed within the working time at the prevailing site condition.
- Apply prepared mortar to the backside of the tile/brick. The bedding thickness will be about 6mm. Place the tile/brick on inter protective liner applied on concrete surface and press it firmly, so that the bedding is uniform.
- Maintain required joint width using spacer blocks.
- Surplus material should carefully scrape with a trowel.
- The cured joint should be free from foreign matter before filling it with **Chemifix PH** mortar.
- The working time and setting time of **Chemifix PH** mortar depends to the extent on its age, temperature and humidity at the working site. Use of ice bath is recommended while preparing the mortar during temperatures above 35 C. The mixed mortar in the form of lumps generates heat and reduces the working time.
- In winter and monsoon the hardening time of mortar may vary.

Storage:

Keep both the powder and Resin in cool, dry and in tightly closed conditions, preferably in cold storages.

Shelf Life

Chemifix PHP (Powder) should be used within one month.

Chemifix PHR (Resin) should be used within 15 days.

Packaging

Chemifix PHP (Powder) -37.5 Kg. HDPE Bag Pack

Chemifix PHR (Resin) -35 Kg. /200 Kg. Drum Pack

CHEMICAL RESISTANCE PROPERTIES

CHEMICAL	RESISTANCE
ACIDS	
1 Sulphuric acid (to 70%)	Resistant
2 Sulphuric acid (70% to 98%)	* Limited
3 Hydrochloric acid (to conc)	Resistant
4 Nitric acid (to 5%)	Resistant (to 40°C)
5 Acetic acid (to 10%)	Resistant
6 Acetic acid (Glacial)	Resistant
7 Chromic acid (to 10%)	*Limited
8 Chromic acid (to 10% to conc.)	Unsuited
9 Phosphoric acid (to full str.)	Resistant
10 Lactic acid (to any strength)	Resistant
11 Hydrofluoric acid (to 40%)	Unsuited
ALKALIES	
1 Ammonia .880	Resistant
2 Sodium hydroxide (to 40%)	Resistant
3 Sodium carbonate (to conc.)	Resistant
4 Calcium hydroxide (to sat sol.)	Resistant
SALT SOLUTIONS	
1 Solutions in general	Resistant
SOLVENTS	
1 Hydrocarbons (aliphatic)	Resistant
2 Hydrocarbons (aromatic)	Resistant
3 Alcohols	Resistant
4 Ketones	*Limited
5 Chlorinated hydrocarbons	Resistant
OTHERS	
1 Mineral oils	Resistant
2 Vegetable oils	Resistant
3 Fats and greases	Resistant

* Suitable in certain conditions according to chemical conditions. Consult Suppliers.

Protection through Precaution



OUR PRODUCT RANGE:

Cement

Chemifix F (Furan)
Chemifix PH (Phenolic)
Chemifix KS (Pottasium Silicate)
Chemifix SS (Sodium Silicate)
Chemifix CNSL (Cashew Nut Shell Liquid)

Unsaturated Polyester Resin

Chemifix ISO (Isophthalic Grade)
Chemifix SGP (Superior G.P. Grade)
Chemifix GP (General Purpose Grade)
Chemifix RG (Roof Grade)
Chemifix BG (Button Grade)

PHYSICAL PROPERTIES :

	Furane	Phenolic	K-Silicate	CNSL	Sulphur	Epoxy	Polyester
Colour	Black	Black	Off White	Black	Black	Off White	Off White
Ratio (Solution : Powder)	1:3	1:3	1:3	1:3	Hotmelt	1:5	1:5
Compressive Strength (kg/cm ²)	350	350	150	280	250	500	500
Flexural Strength (kg/cm ²)	75	75	40	75	70	150	150
Bond Strength (kg/cm ²)	10	10	05	10	10	10	12
Water Absorption (max %)	01	01	18*	01	01	01	01
Temperature Resistant (max °C)	170	170	900	190	90	90	90

Chemisight
RESINS TECHNOLOGIES

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