

Protection through Precaution



CHEMIFIX F
(Furan) Mortar

Packaging:

Chemifix FP (Powder)-37.5 Kg. HDPE Bag Pack
Chemifix FR (Resin)-35 Kg. / 200 Kg. Drum Pack

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 :

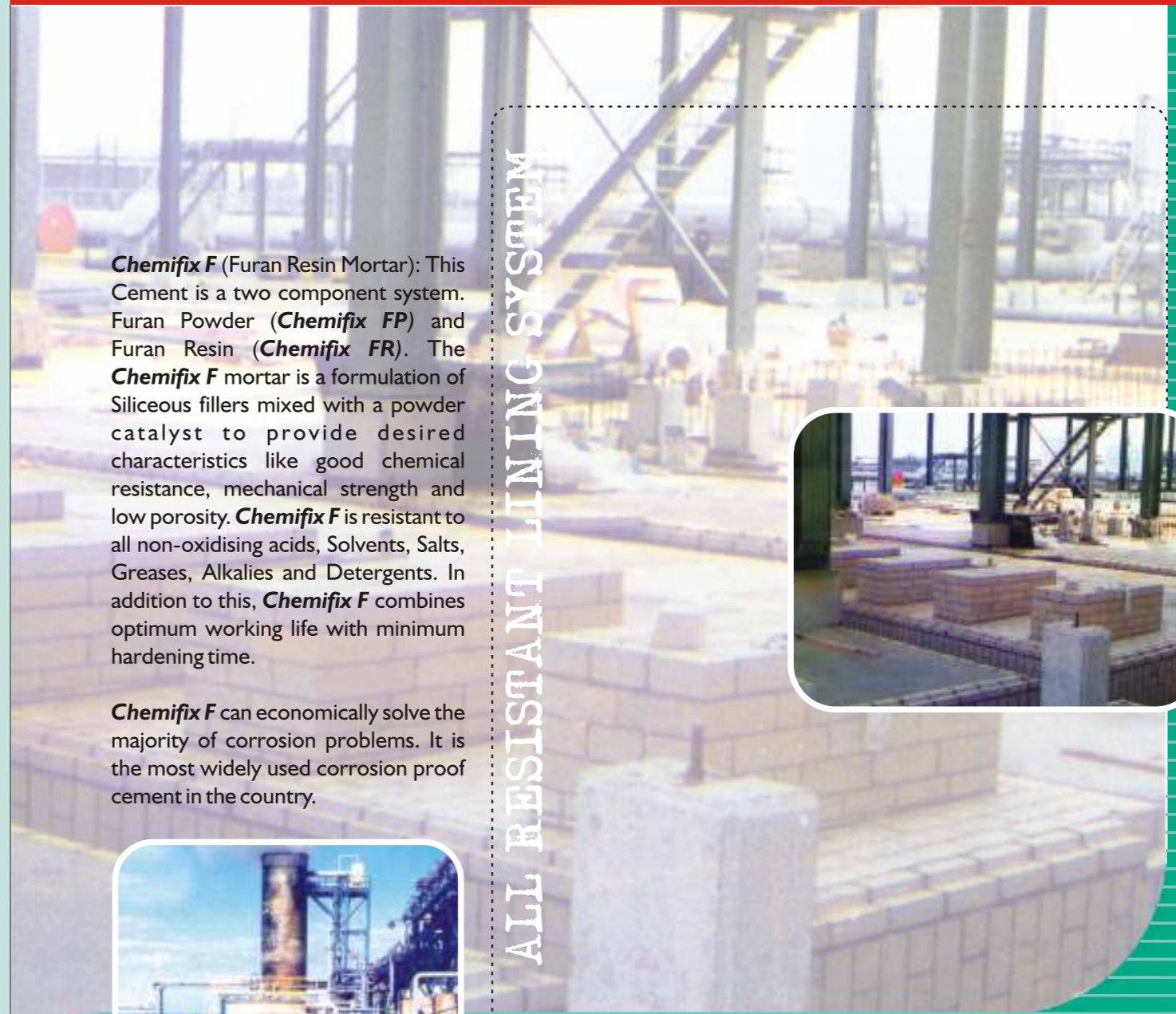
	Furane	Phenolic	K-Silicate	CNSL	Sulphur	Epoxy	Polyester
Colour	Black	Black	Off White	Black	Black	Off White	Off White
Ratio (Solution : Powder)	1:3	1:3	1:3	1:3	Hotmelt	1:5	1:5
Compressive Strength (kg/cm ²)	350	350	150	280	250	500	500
Flexural Strength (kg/cm ²)	75	75	40	75	70	150	150
Bond Strength (kg/cm 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



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ALL RESISTANT LINING SYSTEM

Chemifix F (Furan Resin Mortar): This Cement is a two component system. Furan Powder (**Chemifix FP**) and Furan Resin (**Chemifix FR**). The **Chemifix F** mortar is a formulation of Siliceous fillers mixed with a powder catalyst to provide desired characteristics like good chemical resistance, mechanical strength and low porosity. **Chemifix F** is resistant to all non-oxidising acids, Solvents, Salts, Greases, Alkalies and Detergents. In addition to this, **Chemifix F** combines optimum working life with minimum hardening time.

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



PHYSICAL DATA

Tensile strength	: 500 - 700 lb per. sq. in
Temperature limit	: 170°C
Porosity (Max. %)	: 01
Mixing ratio	: Powder:Resin 3:1 by weight
Adhesive to unglazed ceramic ware (kg/cm ²)	: 10
Shelf life @ 27 °C	: 60 days

Application Area

Chemifix F is widely used for bonding or pointing of bricks/tiles for anti-corrosive constructional work areas like Tanks, Channels, Floors, Foundations, Pits, Effluent treatment pickling tanks, Drains, Chimneys, Reactions Tanks and other areas where corrosives like Nitric Acid are handled.

Application Method

Chemifix FP (Powder) and **Chemifix FR** (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 Furan mortar (**Chemifix F**) produced should be used up within 20 minutes from mixing. Some heat will be produced in the setting of Furan mortar, so it is important to spread the mixed Furan 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 F* 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 F** should not be 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 be carefully scraped with a trowel.
- Before carrying out the pointing with **Chemifix F** Mortar, joints should be cured with Hydrochloric Acid for a period of 24 hours consisting of one part by volume of commercial Hydrochloric Acid and two parts by volume of water.
- The cured joint should be free from foreign matter before filling it with **Chemifix F** mortar.
- The working time and setting time of **Chemifix F** 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.
- For tile lining, it is essential to give an acid treatment to the mortar by brushing 20%, Hydrochloric/Sulphuric Acid into the Silicate joint for proper curing before pointing of joints.
- 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 FP (Powder)-1 Year at 35° C

Chemifix FR (Resin)-3 months at 20° C or 6 weeks at 35°C

CHEMICAL RESISTANCE PROPERTIES

CHEMICAL RESISTANCE

ACIDS		RESISTANCE
1	Acetic acid 10%	Resistant
2	Chromic acid 10%	Not recommended
3	Hydrochloric acid (conc)	Resistant
4	Hydrofluoric acid 40%	Resistant
5	Lactic acid 2%	Resistant
6	Nitric acid 10%	Resistant
7	Nitric acid (cone)	Not recommended
8	Phosphoric acid 10%	Not recommended
9	Sulphuric acid 10%	Resistant
10	Sulphuric acid 40%	Resistant
11	Sulphuric acid (conc)	Resistant

ALKALIES

1	Ammonia .880	Resistant
2	Sodium hydroxide (to 40%)	Resistant
3	Sodium carbonate	Resistant
4	Calcium hydroxide	Resistant

SOLT SOLUTIONS

1	Salt solution (acidic)	Resistant
2	Salt solution (alkaline)	Resistant

SOLVENTS

1	Aliphatic hydrocarbons	Resistant
2	Aromatic hydrocarbons	Resistant
3	Alcohols	Resistant
4	Ketones	Resistant
5	Chlorinated hydrocarbons	Resistant
6	Wet Gases (oxidizing)	Not recommended
7	Wet Gases (reducing)	Resistant
8	Mineral oils	Resistant
9	Vegetable Oils and Fats	Resistant