

# **PolyPlast Resin based Mortar**

### **Technical Information**

❖ 4 – Part Resin based Mortar for Brick and Tile Lining for protection against Acid/Alkali attacks.

### **Description:**

- ❖ Polyplast Resin based Mortar is a Resin based Mortar based on a selected Poly Ester Resin. It is resistant to most acid solutions, Alkalis and many organic solvents. It is unaffected by salt solutions, water, oils and many other oxidizing agents.
- ❖ The liquid binder is a Poly Ester resin combined with a reactive cross-linking monomer. The Viscosity of the binder is carefully controlled to ensure easy, uniform mixing with filler. The mortar cures by internal chemical action to form a non-porous mortar, which has excellent adhesion to ceramic, metals as well as concrete.

#### Base:

❖ Poly Ester Resin

## **Material Group:**

Mortars, Jointing Materials

#### **Properties:**

- ❖ Excellent Protection against almost all Acid and Alkali attacks
- Quick Curing/Setting and Easy Application
- ❖ Working upto temperature of 100 °C

#### Physical Data as Per IS: 4832 (Part II) - 1969:

Property	Value
Maximum Temperature	120 °C
Standard Colour	Off- White/ Yellowish
Density lbs/cu ft.	120
Tensile Strength psi.	2300
Compressive Strength psi.	10000
Bond Strength psi.	400
Water Absorption %	0.2
Linear Shrinkage %	0.6
Working Time at 26 °C	35 min
Initial Setting Time at 26 °C	60 min



#### **Surface:**

- ❖ Steel: The Steel structure should be free of rust and dust particles. The structure should be in leak proof condition and have passed Hydraulic Test for atleast 72 hours. If not, the structure is to be rectified using Sand Blasting and application of Primer of proper surface.
- ❖ RCC: The RCC structures and other area should be compact and sound without any honey combings. It should be in totally leak-proof condition by ascertaining Hydraulic (Water Test) for 72 hours and if any leakages, seepages are found they are to be repaired by pressure grouting from outside.

## **Packaging / Shelf Life:**

Item Type	Packing Type	Content	Shelf Life
PolyPlast Resin	MS/HDPE Drums	35/50/220 Kg	6 Months
PolyPlast Resin Catalyst	Carboy	5/10/30 Kg	6 Months
PolyPlast Resin Accelerator	Carboy	5/10/30 Kg	6 Months
PolyPlast Resin Powder	Bags	50 Kg	12 Months

# **Mixing Ratio / Consumption:**

	Parts by Weight
PolyPlast VE Resin	1.0
PolyPlast VE Resin Catalyst	0.020
PolyPlast VE Resin Accelerator	0.020
PolyPlast VE Resin Powder	3.5

Bricks or tiles are to be applied in such a way that the thickness of bedding is min. 4 mm and max. 8 mm.

# **Consumption of Mortar:**

- ❖ Approx. 18.3 kg/m² for 20 mm Tiles
- ❖ Approx. 16.24 kg/m² for 12 mm Tiles

# **Working Time:**

❖ Approximately 35-40 minutes at 20 °C

# **Curing Time:**

- ❖ Approx. 6 hours at 15 °C
- ❖ Approx. 4 hours at 20 °C
- ❖ Approx. 3 hours at 25 °C





## **Application:**

- ❖ Mortar is made slowly by mixing the powder into the solution. Mortar of suitable consistency for laying acid-proof tiles is prepared.
- ❖ Best results are obtained by making small batches of mortar. Joints between tiles should be as thin as practically possible, preferably 3 to 4 mm. Once the mortar has started to gel, it cannot be reworked and must be discarded.

# **Major Areas of Application:**

- ❖ D-Stage Chlorine DiOxide Towers
- Chlor- Alkali Industries
- Paper- Pulp Industries
- Phosphoric acid and Fertilizer Productions
- Reinforced Plastics for Floors
- ❖ Transportation and Storage of corrosive chemicals
- Electrical Insulation

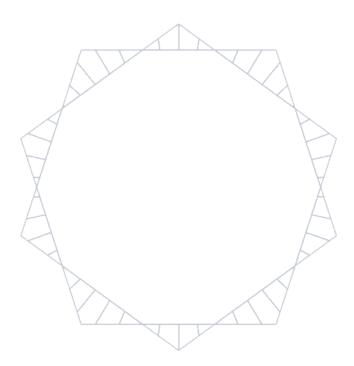
#### **Safety Measures:**

- Some contents for the Mortar are volatile and hence the mortar is to be prepared in highly ventilated areas only. Proper ventilation is to be provided for structures such as high Towers.
- Any material should not be exposed to high temperatures or be near any fire or flames. The solution is highly inflammable and hence activities such as smoking for lighting a fire nearby is not advised.
- ❖ Do not expose materials to heat or open flame. This applies in particular to welding works (weld beads). Avoid direct contact of the material with the skin. Wash hands with soap and water; do not clean the skin with solvents.
- ❖ Kindly go through the Mateial Safety Data sheet for further information.



#### **Cleaning of Equipment:**

❖ Working tools which are contaminated with not fully cured material can be cleaned by removing the material by striking gently with hammer or by removing the material with spare Chisel or Trowel.



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