

TECHNICAL DATA SHEET

Potassium Silicate Mortar. (Acid Resistant Mortar)

Potassium Silicate Mortar is widely used for Acid Resistant Bricks & Tiles lining works as Bedding & Jointing Mortar for Tanks, Floor, Drain, Foundation etc.

Resistant: It is resistant to Oxidizing & Non-oxidizing Acids, & Chlorine Gas except Hydrofluoric Acid.

Resistant to temperature: 1000°C (Max.)

Preparation of Mortar:

Preparation of Mortar generally consists of Solution & Powder. In order to obtain good working consistency, the average mixing ratio is 1 Pbw of Solution & 3 pbw of Powder. This ratio will slightly vary depending upon the temperature and working conditions.

Prepare small batches of Mortar. Stirrer the Solution thoroughly before use. Place the Solution in a suitable mixing pan and add powder in it. Mix thoroughly with a spatula or Trowel. The mixing operation shall be continued until a uniform mixture is obtained.

Make sure that all the Mortar is used from the mixing pan before another batch is prepared.

Surface Preparation:

The cement plastered surface shall be slightly rough in line & level, dry & clean, free from dust, dirt, grease, oil etc., maintaining required slope etc. as no slope can be adjusted or altered in Acid proof lining works.

Setting/Curing:

Potassium Silicate Mortar is a Self-hardening due to its chemical reaction which occurs when the Powder & Liquid are mixed together.

An initial setting occurs in 6 to 8 hrs. at 30°C

Final Setting occurs in 24 to 48 hrs. at 30°C

Curing time : 7 days at 30°C

Please ensure that no water shall be spilled over the bricks lining works before it completely cured.

Acid Curing: When the bedding & jointing mortar is different, after the bedding mortar is properly set, cure the joints for a minimum period of 72 hours with 20 to 25% HCL acid before applying the resin type mortar. After acid curing, wash the free acid in the joints with clean water & allow sufficient time for thorough drying. Resin mortar shall then be filled into the joints.

Mechanical/Physical property (As per IS-4832 Part-I) :

Working time at 30 °C	: 20 minute (min)
Density of cured mortar	: 2 gm per cc
Bond strength	: 5 Kg.Cm ²
Compressive Strength	: 150 Kg/Cm ²
Flexural Strength	: 40 Kg/Cm ²
Toluene Absorption	: Max. 18%

Storage Life:

Solution : 24 Months at the temperature 30°C (±2°C)

Powder : 24 Months at the temperature 30°C (±2°C)

All two components are stored in cool and dry place under the roof until ready to use its original unopened (Sealed) containers.

Standard Packing

Solution : 75 Kg. in Plastic Drum

Powder : 50 Kg. in Plastic Bag.

Export packing (As per customer's requirement)

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