

Techno™ FU-633

Anti Acid Mortar

TECHNO POL

مقاوم سازی تکنوپل

PRODUCT DESCRIPTION

Techno™ FU-633 is a two-component, high-performance chemical-resistant mortar based on furan resin and specially selected mineral fillers. The product is designed for applications where high resistance to aggressive chemicals, acids, alkalis and solvents is required.

The dense polymer-mineral structure of the mortar provides high mechanical strength, low permeability and excellent resistance to chemical attack. Techno™ FU-633 is particularly suitable for fixing and jointing acid-resistant tiles, bricks and carbon bricks in industrial environments.

The product can be used in chemical plants, petrochemical facilities, refineries, industrial wastewater treatment areas, battery manufacturing plants and other environments exposed to corrosive chemicals.



Low Permeability



Acid-Resistant Lining



High Mechanical Strength



Industrial Applications



Chemical-Resistant Jointing



Thermal Resistance

TECHNICAL DATA

Product Type	Techno™ FU-633
Type	Two-component furan mortar
Binder Type	Furan resin
Appearance – Component A	Black liquid / resin
Appearance – Component B	White to grey powder
Mixing Ratio	1 : 5 by weight
Density	Approx. 2.0 g/cm ³
Compressive Strength	95–100 MPa
Flexural Strength	40 MPa
Tensile Strength	15 MPa
Adhesion to Substrate	2.5 MPa
Thermal Conductivity	1.35 W/m·K
Service Temperature	185°C
Pot Life at 20°C	10–20 minutes
Full Curing	7 days
Recommended Substrate Temperature	+10°C to +30°C

ADVANTAGES

- Excellent resistance to a wide range of aggressive chemicals
- High resistance to many inorganic and organic acids



Good resistance to alkalis and various solvents

- High compressive and flexural strength
- Low permeability and dense structure
- Excellent suitability for acid-resistant brick and tile lining
- Strong adhesion to suitable mineral substrates
- Suitable for industrial floors, walls, channels and process areas
- Good thermal resistance for elevated-temperature service
- Two-component system with controlled curing characteristics
- Suitable for chemical-resistant jointing and bedding applications

Applications

- Acid-resistant ceramic tile installation
- Acid-resistant brick lining
- Carbon brick installation
- Chemical-resistant floor systems
- Industrial drainage channels
- Chemical processing areas
- Acid and chemical storage areas
- Industrial wastewater treatment facilities
- Battery manufacturing plants
- Petrochemical and refinery facilities
- Chemical production plants
- Areas exposed to chemical splashes and corrosive liquids

Chemical Resistance

The furan-based binder provides high resistance to a broad range of aggressive chemical environments.

The mortar is suitable for exposure to many:

- Mineral acids
- Organic acids

- Alkalies
- Salts
- Chemical solutions
- Industrial solvents

Chemical resistance depends on the concentration of the chemical, operating temperature, exposure time and service conditions. Compatibility with the specific chemical should be confirmed before application in critical installations.

Particular attention should be given to highly concentrated chemicals and elevated-temperature exposure.

Surface Preparation

Proper surface preparation is essential for achieving maximum chemical resistance and adhesion.

The substrate must be:

- Clean and free from dust
- Free from oil, grease and other contaminants
- Structurally sound
- Free from loose or weak material
- Dry unless otherwise specified by the application procedure

For tile and brick lining applications, the bonding surfaces should be clean and free from laitance, dust and contaminants.

Mechanical preparation such as grinding, abrasive cleaning or other suitable methods may be used where necessary.

Application

Techno™ FU-633 can be applied using suitable trowels, spatulas or other appropriate tools.

For acid-resistant tile and brick lining:

- Apply the mortar uniformly to the prepared substrate.
- Position the tile or brick while the mortar remains workable.
- Ensure adequate contact between the mortar and the back of the lining material.
- Maintain the required joint width and mortar thickness according to the project specification.
- Completely fill joints to avoid voids and potential chemical penetration paths.
- Remove excess material before hardening.

Application thickness and consumption depend on the size of the lining elements, joint dimensions and project requirements.

Curing

Curing is an essential part of the performance of furan mortar.

The applied material should be protected from:

- Water
- Rain
- Condensation
- Excessive humidity
- Contamination

- Mechanical damage
- Chemical exposure before sufficient curing

At approximately 20°C, the complete curing period may be around 7 days. Actual curing time is affected by temperature and environmental conditions.

The lining should not be exposed to aggressive chemicals or elevated operating temperatures before adequate curing has been achieved.

Packaging

Techno™ FU-633 is supplied as a two-component system consisting of:

Component A: Furan resin solution

Component B: Specially formulated mineral powder

The components are supplied in pre-measured quantities to facilitate accurate mixing and application.