

Expantile* 489



CONSTRUCTION CHEMISTRY

Epoxy tile adhesive and grout

Uses

As a chemical resistant adhesive and grout for bonding quarry and ceramic tiles to concrete or steel. Also suitable as a multi-purpose adhesive for bedding and repairs.

- Easy to apply
- Easy to clean up during application - can be washed off with water
- Long working life
- Waterproof
- High resistance to a wide range of industrial chemicals including acids & alkalis
- Good adhesion to steel, concrete and tiles

Standards compliance

Expantile* 489 meets the requirements of ANSI specification A118.3 E5.5.

Description

Expantile* 489 is a three component solvent free epoxy resin based adhesive consisting of a white base, a black hardener and specially selected filler. The components are mixed together to give a smooth non-slump paste adhesive and grout.

Properties

Compressive strength (BS 1881, Pt 116) : 83 N/mm²

Tensile strength (ASTM C307-61) : 16.6 N/mm²

Bond shear strength (ANSI A118.3 E5.5) : 7.0 N/mm²

Slant Shear Bond Strength (BS 6319: Pt 4) : 35.0 N/mm²

Flexural strength (ASTM C580) : 32 N/mm²

| | @ 20°C | @ 35°C |
|---------------------------|------------|----------|
| Specific gravity | : 2.0 | 2.0 |
| Pot life | : 2 hours | 1 hour |
| Open time | : 2 hours | 1 hour |
| Adjustability time | : 3 hours | 90 min |
| Initial set | : 8 hours | 4 hours |
| Initial cure | : 24 hours | 18 hours |

Instructions for use

Preparation

All surfaces should be clean and free from dust, loose particles and grease. Oil and grease contaminated concrete surfaces should be treated with proprietary chemical degreaser and then washed well with clean water. Steel surfaces should be grit blasted to SA 21/2 and the adhesive applied within 3 hours of blasting.

Mixing

The base and hardener components should be individually stirred to re-disperse any settlement. The base and hardener should then be mixed together until a uniform grey paste is obtained. The filler should then be incorporated using a slow speed drill and paddle.

Application

The mixed adhesive should be spread over the surface using a serrated trowel or comb. Tiles should be placed within the open time of the adhesive.

Cleaning

The tile adhesive can be removed from tiles, tools and mixing equipment before initial set using a damp rag. After initial set the use of Expanchem solvent 102* and / or mechanical removal will be necessary.

Limitations

Application should not commence if the temperature is below 5°C or if the substrate is affected with either frost or ice. Expantile* 489 should not be applied to damp or wet surfaces nor should it be exposed to moving water during application. If any doubts arise concerning substrate or temperature consult your local Expanchem Fospak office.

Technical support

Expanchem Fospak offers a comprehensive technical support service to specifiers, end users and contractors. It is also able to offer on-site technical assistance, an AutoCAD facility and dedicated specification assistance in locations all over the world.



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Estimating

Supply

Expantile* 489 : 8.75 & 17.50 kg packs

Coverage

Expantile* 489 : 1.75 kg / m² @ 1 mm tile bed
Approximate 1.00 kg / m² as grout

Storage

When stored at 100 °C in dry conditions in the original, unopened packs, Expantile* 489 will have a shelf life of 12 months.

Precautions

Health and safety

Some people are sensitive to epoxy resin systems and solvents. Ensure adequate ventilation and avoid inhalation of vapours. Wear suitable protective clothing, gloves and eye protection.

Direct contact with eyes will cause irritation and may cause serious damage if left untreated. Any eye contamination should be washed thoroughly with water and immediate medical attention sought.

Gloves and barrier creams such as Kerodex 71 or Rozalex9 should always be used when handling Expantile* 489. If contact with skin occurs a resin removing cream such as Kerocleans 22 or Rozalex 42 should be used followed by washing with soap and water. Do not use solvent. If swallowed, do not induce vomiting. Seek medical advice immediately.

Fire

Expanchem Solvent 102 is flammable. No smoking. Ensure adequate ventilation. Do not use near a naked flame.

Flash points

Expanchem Solvent 102 : 33°C

For further information, refer to the Product Material Safety Data Sheet.

Additional Information

Expanchem Fospak manufactures a wide range of complementary products which include :

- waterproofing membranes & waterstops
- joint sealants & filler boards
- cementitious & epoxy grouts
- specialized flooring materials

Expanchem Fospak additionally offers a comprehensive package of products specifically designed for the repair and refurbishment of damaged concrete. Expanchem Fospak's 'Systematic Approach' to concrete repair features the following :

- hand-placed repair mortars
- spray grade repair mortars
- fluid micro-concretes
- chemically resistant epoxy mortars
- anti-carbonation/anti-chloride protective coatings
- chemical and abrasion resistant coatings

For further information on any of the above, please consult your local Expanchem Fospak office.



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* Denotes the trademark registered.

REGIONAL SALES OFFICES IN PAKISTAN:

Fospak (Pvt) Ltd.

Head Office

702, Business Avenue,
Block-6, PECHS., Shakra-e-Faisal,
Karachi, Pakistan.

Tel # +92-21-34528477, 34529859

Fax # +92-21-34522436

Email : info.khi@fospak.com.pk

Lahore Sales Office

2nd Floor Sarwar Shaheed Plaza,
Cavalry Ground,
Main Boulevard, Lahore Cantt,
Lahore, Pakistan.

Tel # +92-42-36675773

Fax # +92-42-36675838

Email : info.lhr@fospak.com.pk

Rawalpindi Sales Office

1st Floor,
Al-Harmain Plaza,
Main Murree Road,
Rawalpindi, Pakistan.

Tel # +92-51-9290592

Fax # +92-51-9290590

Email : info.isb@fospak.com.pk

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