

EPOXY GROUT

THREE
COMPONENT
EPOXY

TILE GAP
JOINT FILLER

HIGH PERFORMANCE WATERPROOF
EPOXY GROUT FOR TILE & STONE JOINTS



VELWIIN
CHEMICALS

RESIN
+
HARDENER
+
FILLER



100%
Waterproof



Crack Free



Easy To Use



Internal &
External Use



Non Shrinking



Available in
Multiple Colours

KEY FEATURES

- Waterproof
- Stain Resistant
- Chemical Resistant
- Crack Resistant
- Suitable for Internal & External Applications
- Ideal for Floors & Walls
- Suitable for Swimming Pools
- Low VOC
- Available in Multiple Colours

DESCRIPTION

Velwiin Epoxy is a premium three-component epoxy-based tile grout and joint filler specially formulated to deliver outstanding durability, waterproof protection and long-lasting colour stability. It is designed for grouting ceramic, vitrified, porcelain, glass mosaic, marble, granite and natural stone tiles where superior mechanical and chemical performance is required.

The cured grout forms a dense, non-porous and impervious joint that offers excellent resistance to water, stains, abrasion, impact and a wide range of household and industrial chemicals. Its smooth finish minimizes dirt accumulation, making cleaning and maintenance quick and easy.

In addition to tile grouting, Velwiin Epoxy can also be used for high-performance bonding and fixing applications where epoxy-based installation systems are recommended.

FEATURES & ADVANTAGES

- Excellent waterproof performance for wet and submerged areas.
- Outstanding resistance to stains, dirt and household cleaning agents.
- Superior resistance to many chemicals, acids and alkalis.
- Hygienic, non-porous and easy-to-clean surface.
- High abrasion and impact resistance for heavy-duty applications.
- Crack-resistant and shrinkage-free joints.
- Excellent compressive and mechanical strength.
- Stable, uniform and fade-resistant colours.
- Suitable for residential, commercial and industrial applications.
- Easy to apply and maintain with long service life.

AREA OF USE

Velwiin Epoxy is recommended for grouting a wide variety of ceramic and stone installations where high strength, chemical resistance and waterproof performance are required.

Suitable Tile & Stone Types

- Ceramic tiles
- Glazed ceramic tiles
- Porcelain tiles
- Vitrified & Full Body Vitrified tiles
- Glass Mosaic tiles
- Marble
- Granite
- Natural Stone
- Engineered Stone
- Composite Stone
- Large Format Tiles & Slabs

Recommended Applications

- Internal & External Wall & Floor Joints
- Internal & External Wall Joints
- Swimming Pools
- Commercial Kitchens
- Food Processing Areas
- Pharmaceutical Facilities
- Hospitals & Laboratories
- Hotels & Shopping Malls
- Industrial Plants
- Heavy Traffic Areas
- Residential & Commercial Projects

Velwiin Epoxy is also suitable for use as a high-performance epoxy adhesive for fixing selected tiles and stone wherever epoxy installation systems are specified.

LIMITATIONS

Do not use Velwiin Epoxy under the following conditions:

- Always carry out a sample test before grouting highly absorbent natural stones or light-coloured marble to check for possible staining or resin absorption.
- Some light-coloured natural stones may show darkening or edge staining due to resin penetration.
- For special exterior applications or unusual substrates, consult Velwiin Technical Services before use.

- Continuous exposure to UV rays may cause slight colour variation or yellowing in lighter shades over an extended period.
- Ensure all three components are mixed in the recommended proportions. Altering the mixing ratio may adversely affect product performance.

PERFORMANCE PROPERTIES

Testing Properties	Typical Results
Compressive Strength	> 50 MPa
Flexural Strength	> 30 MPa
Shear Adhesion Strength	≥ 30 kN
Water Absorption	≤ 0.5 g
Pull-Off Adhesion Strength	≥ 1.5 MPa (Concrete Failure)
VOC Content	< 8 g/kg

The above values represent typical laboratory results obtained under standard test conditions. Actual performance may vary depending on substrate preparation, installation method, ambient temperature and site conditions.

CHEMICAL RESISTANCE

Velwiin Epoxy provides excellent resistance against a wide range of household, commercial and industrial chemicals after complete curing.

Suitable for Continuous Exposure

Water, Salt Water, Mild Detergents, Edible Oils, Vegetable Oils, Diesel, Petrol, Lubricating Oils, Milk, Sugar Solutions, Sodium Chloride, Potassium Hydroxide, Carbonates, Chlorides, Ethanol, Ethylene Glycol, Citric Acid (Diluted)

Suitable for Intermittent Exposure (Up to 24 Hours)

Acetic Acid (5%), Household Ammonia, Hydrochloric Acid (Diluted), Lactic Acid (3%), Phosphoric Acid (10%), Sodium Hydroxide

Splash Contact Only

Acetone, Benzene, Chloroform, Ethyl Alcohol, Nitric Acid (10%), Sulphuric Acid (20%), Formic Acid, Phenol

For applications involving aggressive industrial chemicals, consult Velwiin Technical Services before installation.

APPLICATION INSTRUCTIONS

SUBSTRATE PREPARATION

- Allow the tile adhesive to cure for at least 24 hours before commencing grouting.
- Ensure all tile joints are clean, dry and free from dust, loose particles, adhesive residue, oil, grease or other contaminants.
- Remove adhesive from the joints to a minimum depth of $\frac{2}{3}$ of the tile thickness to ensure proper grout penetration.
- Confirm that the adhesive has sufficiently cured and released excess moisture before applying epoxy grout.
- The grout joints must remain completely dry during application.
- Where necessary, apply masking tape along the tile edges to protect porous, textured or polished surfaces from epoxy residue.

MIXING

- Stir Part A (Base) thoroughly before mixing.
- Add the complete quantity of Part B (Hardener) into Part A and mix thoroughly using a hand mixer or a slow-speed mechanical mixer (maximum 300 RPM) until a uniform blend is obtained.
- Gradually add Part C (Coloured Filler) while continuously mixing until a smooth, homogeneous and lump-free paste is achieved.
- Avoid over-mixing or high-speed mixing, as excessive air entrapment may affect the final finish and reduce the working time.
- Use the prepared mixture within 45–60 minutes after mixing.

APPLICATION

For Tile Grouting

- Using a hard rubber grout float, force the mixed epoxy grout firmly into the tile joints.
- Hold the grout float at approximately 90° and move it diagonally across the joints to ensure complete filling.
- Work in small sections for easier application and cleaning.
- Ensure every joint is fully packed throughout its depth without leaving voids or air pockets.
- Remove excess grout from the tile surface immediately before it starts to cure.

For Tile Fixing (Epoxy Adhesive Application)

- Spread the mixed epoxy using a suitable notched trowel.
- Install the tiles while the adhesive remains within its open working time.
- Press each tile firmly to achieve full contact between the adhesive and the tile.
- Remove excess material from the tile surface immediately after installation.

CLEANING & FINISHING

- Remove excess epoxy grout from the tile surface within 30–45 minutes of application or before the material begins to harden.
- Use a damp sponge or suitable cleaning pad to clean the tile surface without disturbing the grout joints.
- Clean in a circular motion while frequently rinsing the sponge with clean water.
- After initial cleaning, remove any remaining epoxy haze using an appropriate alkaline cleaner or epoxy grout cleaner.
- Wash all tools, containers and application equipment immediately after use while the material is still fresh.

PRECAUTIONS & NOTES

- Always use the complete quantity of Part A (Base), Part B (Hardener) and Part C (Filler) supplied in the pack. Altering the recommended mixing ratio may adversely affect the product's performance.
- Do not apply the epoxy grout to wet or damp tile joints. Ensure that all joints are completely dry before application.
- Avoid excessive or high-speed mixing, as this may introduce air bubbles and reduce the working time of the material.
- When grouting porous, unglazed, textured, matt-finish tiles or natural stone, it is recommended to apply masking tape or conduct a trial application to prevent possible surface staining.
- During cleaning, replace the cleaning water frequently and use a clean sponge or cloth to achieve a uniform finish.
- Protect freshly grouted surfaces from rain, water exposure and foot traffic for at least 24 hours after application.
- Do not use acidic cleaners to remove epoxy residue. Always use a suitable epoxy grout cleaner or approved alkaline cleaner.
- Do not allow epoxy grout to cure on the tile surface. Remove excess material immediately during installation for easier cleaning.
- For best performance, apply the product within the recommended pot life and under the specified application temperature.

DISCLAIMER

The technical information contained in this Technical Data Sheet is based on laboratory testing and practical field experience. Since site conditions, workmanship and application methods are beyond the control of Velwiin Chemicals, the user is responsible for verifying the suitability of the product for the intended application.

Velwiin Chemicals reserves the right to modify product specifications without prior notice as part of its continuous product improvement programme.

PACKAGING

Velwiin Epoxy is available in the following pack sizes:

- 1 kg
- 5 kg

SHELF LIFE

12 months from the date of manufacture when stored in the original unopened packaging under cool, dry conditions, protected from direct sunlight, moisture and extreme temperatures (+15°C to +35°C).

SAFETY PRECAUTIONS

- Keep out of reach of children. Wear suitable protective gloves, safety goggles and protective clothing during handling and application.
- Avoid direct contact with skin and eyes.
- In case of skin contact, wash immediately with plenty of clean water.
- In case of eye contact, rinse thoroughly with clean water and seek medical attention if irritation persists. Intended for professional use only.
- Refer to the latest Safety Data Sheet (SDS) before use for complete health and safety information.

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