Crocodile Epoxy Plus Tile Adhesive and Grout

Reaction Resin Based Tile Adhesive and Grout



Ultimate American Standard Tile Adhesive and Grout for High Durability and Hygienic Areas.

Crocodile Epoxy Plus Tile Adhesive and Grout is a High-performance tile adhesive and grout with American standard quality. Designed for simultaneous tile installation and grouting, ideal for durable and hygienic areas such as glass mosaics, resin mosaics, green marble, natural stone, and moisture-sensitive materials. Compatible with various substrates including concrete, brick walls, plastered walls, existing tiles, metal sheets, glass, and fiberglass. Suitable for chemically cleaned environments like hospitals, kitchens, food prep areas, exteriors, factories, bathrooms, and swimming pools. Safe for users and occupants.

Product Features

- Ultimate tile adhesive and grout with high bond strength, tough surface, and abrasion resistance.
- Resistant to impact, water pressure, and corrosion from chemicals and acids.
- Anti-black mold, algae and bacteria with Microban® Technology.
- Prevents deep penetration of germs and dirt into the grout surface.
- No pungent smell and Ultra Low VOCs.
- Suitable for joint widths of 2-12 mm for floors and 2-6 mm for walls.

American Standard: ANSI A118.3

Color: 14 colors

Preparation

For Tiling Applications

- The substrate must be clean, dry, sound and free from dust, oil, grease, curing compounds, paint, cement residues, and other contaminants that may impair the bond performance of the product.

For Grouting Applications

- Grout joint widths should be between 2-12 mm for floor applications and 2-6 mm for wall applications. Grout joint depth should be at least two-thirds of the tile thickness. Grouting should be carried out at least 48 hours after tile installation, or after the tile adhesive has fully cured.
- Prior to grouting, ensure that the grout joints are clean and free from dust, dirt, loose particles, and debris. Verify that no standing water is present within the grout joints before application.

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Mixing Ratio

Part A (1 bag) is to be mixed with Part B (1 bag) at a resin to hardener ratio of 4:1 by weight.

Mixing

- Pour Part A and Part B into a clean container at the specified mixing ratio without adding water. Squeeze Part B from its packaging as completely as possible. Mix the entire contents of each Part A and Part B set at one time and do not mix partial quantities, as this may affect the mixing ratio and product performance.
- Mix using clean and dry tools until a uniform consistency is achieved. When using a low-speed, high-torque mixer, operate at a speed not exceeding 150 rpm and mix continuously for approximately 1 minute, or until a homogeneous mixture is obtained.
- Allow the mixture to stand for approximately 5 minutes to enable the chemical components to react fully. Remix thoroughly before application.
- The mixed material should be used within 20-30 minutes after mixing, depending on ambient temperature and site conditions.

Application

For Tiling Applications

- Using the flat side of a notched trowel, spread the mixed adhesive onto the substrate to be tiled. The recommended adhesive thickness is 2-3 mm for mosaic tiles and 4-6 mm for general tile installations. The mixed material should be used within 20 minutes after mixing.
- Using the notched side of the trowel, hold the trowel at an angle of approximately 60° to the substrate and comb the adhesive into uniform ridges suitable for the tile size.
- Place the tiles onto the adhesive, then use a rubber mallet or tile vibrator to ensure proper adhesion and embed the tiles into the adhesive bed until the adhesive rises to approximately one-half of the tile thickness. Verify that the adhesive achieves full contact with the back of the tiles and adjust the tile position as required.
- After tile installation, clean the tile joints to a depth of not less than three-quarters of the tile thickness to allow for subsequent grouting. Remove all adhesive residues from the tile surface and tools within 20-30 minutes. The cleaning time may vary depending on ambient temperature during application.
- Grouting should be carried out at least 48 hours after tile installation.

For Grouting Applications

- Using a rubber grout float, force the mixed grout into the grout joints until completely filled. Apply diagonally across the joints to prevent the grout float from pulling grout out of the joints. Remove as much excess grout as possible from the tile surface and clean the tile surface immediately to prevent grout residue from hardening on the tiles.
- Allow the grout to set for approximately 20-30 minutes (depending on ambient temperature), then clean any remaining grout residue from the tile surface using a sponge dampened with a diluted dishwashing detergent solution (1 part dishwashing detergent to 100 parts water).
- Protect the grout joints from dust and dirt for at least 24 hours. Thereafter, clean the tile surface again with warm water.
- Allow the grout to dry for at least 24 hours before opening the area for service. The grout will develop its full chemical resistance and resistance to stain penetration within 7 days after grouting.

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Limitations

For Tiling Applications

- Not suitable for installation on rubber substrates and substrates subject to vibration.
- For light-colored marble, a white-colored adhesive is recommended to minimize the risk of discoloration or adverse effects on the appearance of the stone.
- Avoid application when the ambient or substrate temperature is below 16°C or above 35°C.

For Grouting Applications

- For rough, uneven textured, or highly porous tile surfaces, a trial application in a small area is recommended prior to grouting. Alternatively, apply Crocodile Grout Release to the tile surface before grouting.
- For swimming pools or areas subject to continuous water exposure, allow the grout to dry completely for at least 7 days before filling the area with water.
- Grouting should be carried out in sections of approximately 1-2 m² at a time to allow efficient removal of excess grout from the tile surface.
- During cleaning, sponges or cloths should be replaced regularly to prevent grout residue from being redeposited onto the tile surface.
- Avoid grouting when the ambient temperature is below 16°C or above 35°C.
- Not suitable for areas exposed to service temperatures exceeding 100°C.

Coverage

For Tiling Applications

Size of notched trowel	Consumption
Notched Trowel Size: 3 x 3 mm	2.67 kilograms per square meter
Notched Trowel Size: 6 x 6 mm	4 kilograms per square meter

For Grouting Applications

Coverage per 2 Kilograms (m²/kg) or per Set of Grout					
Tile Dimensions (Width x Length x Thickness)		Joint Widths			
Unit : Inches	Unit : Centimeters	2 mm	3 mm	5 mm	7 mm
1" x 1" x 1/6"	2.5 x 2.5 x 0.4 cm	2.9	1.9	1.1	0.8
2" x 2" x 1/4"	5 x 5 x 0.6 cm	3.8	2.5	1.5	1.1
4" x 4" x 1/4"	10 x 10 x 0.6 cm	7.6	5.1	3.0	2.2
4" x 4" x 3/8"	10 x 10 x 1 cm	4.6	3.0	1.8	1.3
8" x 8" x 1/4"	20 x 20 x 0.6 cm	15.2	10.1	6.1	4.4
8" x 10" x 1/4"	20 x 25 x 0.6 cm	16.9	11.3	6.8	4.8
12" x 12" x 1/4"	30 x 30 x 0.6 cm	22.9	15.2	9.1	6.5
16" x 16" x 5/16"	40 x 40 x 0.8 cm	22.9	15.2	9.1	6.5
24" x 24" x 3/8"	60 x 60 x 1 cm	27.4	18.3	11.0	7.8

Remark: Actual consumption may vary depending on tile size, grout joint width and depth, substrate conditions, site conditions, and application methods.

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Information

Pot life at 23 ± 2 °C	50 minutes
Waiting time before grouting, keep tile adhesive dry at least	48 hours
Waiting time before traffic, keep tile grout dry at least	24 hours
Joint width	2-6 mm (Wall), 2-12 mm (Floor)
Temperature resistance (Fully cured after 7 days)	≤ 100 °C
Vertical sag resistance after 20 minutes	Joint width 6 mm
VOCs Content (WELL and LEED v4, v4.1)	Pass
VOCs Emission (WELL and LEED v4, v4.1)	Pass

Remarks: Test results obtained from laboratories under controlled conditions may result in testing results that differ from the actual site conditions due to many factors such as temperature, environment, equipment, and others.

Technical Data

American National Standard

Standard Property Requirements	Test Method	Standard Requirements	Result
Water cleanability	ANSI A118.3 Part 5.1	80 minutes	80 minutes
Linear shrinkage at 7 days	ANSI A118.3 Part 5.3	< 0.25%	< 0.25%
Compressive strength at 7 days	ANSI A118.3 Part 5.6	> 3,500 psi	> 10,000 psi
Tensile strength at 7 days	ANSI A118.3 Part 5.7	> 1,000 psi	> 2,000 psi
Flexural strength under standard conditions at 28 days	ISO 13007-4 Part 4.1.3	≥ 30 N/mm^2	> 30 N/mm^2

Remark: 1 MPa = 1 N/mm^2 = 10.197 ksc = 145.038 psi

Table of Crocodile Epoxy Plus chemical resistance (ASTM C267)

Chemical name	Result	Chemical name	Result	Chemical name	Result	Chemical name	Result
Acetic acid 3%	R	Beer	R	Carbon Disulfide	C	Ethyl Alcohol	C
Acetic acid 10%	N	Benzaldehyde	N	Carbon Tetrachloride	R	Ethyl Amine	N
Acetic Anhydride	N	Benzene	N	Chloroacetic Acid 50%	N	Ethyl Bromide	N
Acetic Acid Glacial	N	Benzyl Acetate	C	Chloroacetic Acid 100%	N	Ferric Chloride	R
Acetone	C	Benzyl Alcohol	N	Chlorobenzene	N	Formic Acid Glacial	N
Aluminum Fluoride	R	Bromine Water	R	Chlorine Water (Bleach)	R	Formic Acid 10%	N
Amyl Alcohol	R	Butanol	R	Chromic Acid 10%	R	Gasoline	C
Ammonia 10%	R	Butyl Acetate	N	Citric Acid 20%	R	Household Ammonia	R
Ammonia 25%	R	Butyl Cellosolve	N	Cooking Grease	R	Hydrobromic Acid 10%	R
Aniline	N	Calcium Chloride	R	Cresol	N	Hydrochloric Acid 10%	R
Barium Hydroxide	R	Calcium Hydroxide	R	Diesel B7	R	Hydrochloric Acid 30%	R

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Chemical name	Result	Chemical name	Result	Chemical name	Result	Chemical name	Result
Hydrofluoric Acid 10%	R	Nitrobenzene	N	Pyridine 20%	C	Sulfuric Acid 30%	N
Hydrofluoric Acid 48%	R	Nitrotoluene	N	Sat. Sugar Solution	R	Sulfuric Acid 80%	R
Hydriodic Acid 20%	R	Phenol	N	Sodium Carbonate	R	Tetrahydrofuran	N
Lactic Acid 3%	N	Phosphoric Acid 10%	R	Sodium Hydroxide 10%	R	Trisodium Phosphate 5%	R
Lactic Acid 10%	N	Potassium Hydroxide 5%	R	Sodium Hydroxide 40%	R	Vegetable Oil	R
Methyl Ethyl Ketone	C	Potassium Hypochlorite	R	Sodium Hypochlorite 10%	N	Water	R
Nitric Acid 10%	N	Potassium Persulfate	N	Soy Sauce	R	Wine	R
Nitric Acid 40%	N	Pyridine	N	Sulfuric Acid 10%	R	Xylene	C

Remark: R = No visual deterioration and compressive strength > 4,000 psi

C = No visual deterioration and compressive strength < 4,000 psi

N = Visual Deterioration

Caution

- May cause irritation to the eyes, skin, or respiratory system. Wear appropriate protective clothing, gloves, and eye/face protection.
- In case of eye contact, rinse immediately with plenty of water and seek medical advice.
- If skin or face contact occurs, wash immediately with soap and water.
- Keep out of reach of children.
- Do not ingest.

Storage

- The product should be stored in a shaded, dry, and moisture-free area with good ventilation. Avoid areas with excessively high temperatures, as this may cause product degradation.
- The product has a shelf life of 1 year from the manufacturing date, provided it is stored in a tightly sealed, undamaged, and unopened package.
- If the product is not completely used, tightly reseal the bag and container after each use. Please note that the remaining shelf life may be reduced depending on storage conditions.

Packing

Net weight: 2 kg per set (Part A: 1,600 g; Part B: 400 g), 6 sets per box.

Legal Disclaimer

The information provided is given in good faith, based on current knowledge and Jorakay Corporation's experience with the products when they are properly stored, handled and applied in normal situations and in accordance with the recommendations of Jorakay Corporation. This is useful for information and consulting but is not legally binding. In particular, it does not exempt the user from testing and verifying the suitability of the product for the desired application and purpose. Jorakay Corporation reserves the right to modifications that improve the product or its application. This version invalidates the previous ones.

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