



2954 Epotech+

Description

Three-component, solvent-free, epoxy-resin-based, chemical resistant adhesive and water wipeable grout.

Fields of Application

- Adhesion and grouting applications of surface coating materials such as antiacid porcelain tiles, granite, etc.
- In industries like food, textile, pharmaceutical, and hospitals, thermal swimming pools where hygiene is required.
- In industrial places where high chemical and mechanical strength is required.
- Laboratory benches and commercial kitchen working areas.
- Provides excellent results for joints in saline or thermal swimming pools, wastewater treatment plants.

Properties

- Excellent bonding.
- Highly resistant to heavy traffic.
- Can be applied on a vertical surface.
- Easily trowellable.
- Excellent chemical and mechanical resistance.
- Stain resistant.
- Hygienic thanks to its low water absorption.
- Easy to clean thanks to its smooth surface.
- Crack, abrasion resistant and durable.
- Easy to apply with 60 minutes pot life at 25°C.

Preparation of Substrates

As an adhesive

- The surface must be dry and moisture content should not exceed 5%.
- Substrates must be sound, free from oil, grease, and sufficiently dry. Cementitious substrates must be cured.
- Use Tamirart series repair mortar or Mastar 10 in case of any loose and uneven substrates to get a sound and flat surface. .
- Wipe the back sides of tiles with water if dusty.

Application

As an adhesive

- First, empty the lower pail that contains components B and C. Then pour component A into the lower pail completely without leaving any residuals. Next, pour component B onto component A and mix with a low speed mixer until the mixture becomes homogeneous.
- Pour the component C, onto the mixture of components A and B which is already prepared in the pail completely without leaving any residuals. Mix with a low speed mixer to obtain a homogenous mixture.
- Spread the material by a notched trowel appropriate to the dimension. To obtain a good adhesion first apply a thin coat with the flat side of the trowel, then notch with the toothed side.
- Install the tiles with a firm pressure.
- Apply the material within its pot life which is 60 minutes. Dispose the material of which pot life is expired.



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Preparation of Substrates

As a grout

- The surface must be dry and moisture content should not exceed 5%.
- The joint gaps should be free of adhesion preventive foreign substances such as dust, dirt, cement residues etc.
- The joint gaps should be at least 2/3 of the tile thickness.
- When laying the tiles the adhesives or mortars overflowing into the joint cavities should be cleaned before it hardens.
- Dampen the joints with clean water when using very porous ceramic tiles in high temperatures and in the presence of wind.

Application

As a grout

- Pour the grout on the tiles, spread the ground by the help of a rubber trowel and work the grout diagonally across the joints, filling them full. Remove excess grout off the tile using the edge of rubber trowel by diagonal movements and avoid pulling the grout out of filled joints.
- After 15 minutes, clean the excess grout using a damp sponge soaked in soap and water mixture, by making light circular movements on the tile surface and joints. Change the cleaning water and sponge as often as needed.

Post-Application Protection & Suggestions

- At low temperatures the viscosity of the material increases. Therefore keep the material at room temperature ($23\pm 3^{\circ}\text{C}$) for one day before use.
- Do not walk on the floor for the first 24 hours after application.
- Ventilate the work area during the application.
- Wear gloves, goggles / masks when working.
- Do not mix the product with water or solvents.
- Do not use it for grouting porous stones and ceramics. Epoxy resin may affect the color.
- Remove excess product from the tile surface rapidly because once hardened it will have to be removed mechanically.
- When the products are exposed to UV rays colours may darken.
- The consumption values in the table refers to an average consumption amount. It may vary depending on the application conditions and surface properties.
- In case of skin and eye contact wash with plenty of water. For further information refer to the safety data sheet.

Storage

- Packages should be kept dry and cool at between $+5^{\circ}\text{C}$ and $+35^{\circ}\text{C}$ in moisture free conditions. Avoid direct sunlight.
- Packages should be protected from water, frost and adverse weather conditions.
- Shelf life is maximum 12 months conditional to complying with the above-mentioned storage conditions.

Packaging

- In 5 kg units and plastic pails (3 component)
Component A: 2.3 kg
Component B: 0.3 kg
Component C: 2.4 kg



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Technical Properties

(at 23°C and 50% RH)

General Data

Appearance	Component A: White, Grey viscose liquid Component B: Light yellow transparent liquid Component C: Whitish powder
Shelf Life	12 months when stored in the original sealed packing place.

Application Data

Application Temperature Range	(+10°C) - (+27°C)
Pot Life	60 minutes at 25°C
Period of Grout filling	12 - 48 hours (Depending on the temperature)
Ready for Use (Max. Chemical Resistance)	7 days
Set to Foot Traffic	24 hours
Consumption	As an adhesive 3 - 4 kg./m ² As a grout see epoxy grout consumption table.

Performance Data

Open Time	After 30 minutes ≥ 0.5 N/mm ²
Shear Adhesion Strength (EN 12003)	
- Initial	≥ 2 N/mm ²
- After immersion in water	≥ 2 N/mm ²
- After thermal shock	≥ 2 N/mm ²
Flexural Strength (EN 12808-3)	≥ 30 N/mm ²
Compressive Strength (EN 12808-3)	≥ 45 N/mm ²
Abrasion Resistance (EN 12808-2)	≤ 250 mm ³
Shrinkage (EN 12808-4)	≤ 1.5 mm/m
Water Absorption (after 240 min) (EN 12808-5)	≤ 0.1 gr
Service Temperature Range (after final cure)	(-20°C) - (+80°C)
Release of Dangerous Substances	See SDS.
Reaction to fire	Bs1d0

Consumption



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Joint Width (mm)	Joint Gap Depth (mm)	Ceramic Size (mm)	Consumption (gr/m ²)
3	14	115x240	1050
3	15	115x240	1100
3	14	240x240	750
3	7	200x200	400
3	7	250x250	350
3	8.5	300x300	350
3	9	300x600	250
3	9	330x500	250
3	9	400x400	250
3	12	600x600	250
4	14	115x240	1400
4	15	115x240	1400
4	15	240x240	1000
4	7	200x200	550
4	7	250x250	450
4	8.5	300x300	450
4	9	300x600	350
4	9	330x500	350
4	9	400x400	350
4	12	600x600	300
5	14	115x240	1750
5	15	115x240	1850
5	15	240x240	1200
5	7	200x200	700
5	7	250x250	850
5	8.5	300x300	550
5	9	300x600	450
5	9	330x500	450
5	9	400x400	450
5	12	600x600	400
7	14	115x240	2400
7	15	115x240	2600
7	15	240x240	1700
7	7	200x200	950
7	7	250x250	750
7	8.5	300x300	750
7	9	300x600	600
7	9	330x500	600
7	9	400x400	600
7	12	600x600	550
10	14	115x240	3500
10	15	115x240	3650
10	15	240x240	2400
10	7	200x200	1350
10	7	250x250	1100
10	8.5	300x300	1100
10	9	300x600	900
10	9	330x500	900
10	9	400x400	900
10	12	600x600	800

Epotech+ Chemical Resistance Test Results



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CHEMICAL NAME	%	TEST
Aluminium Sulphate	2	+
Ammonium Chloride	10	+
Ammonium Chloride	40	+
Ammonium Nitrate	40	+
Ammonium Sulphate	40	+
Antifreeze	-	+
Acetic Acid	10	+
Acetone	-	-
Copper Sulphate	40	+
Barium Chloride	40	+
Benzoic Acid	10	+
Beer	-	+
Boric Acid	10	+
Zinc Chloride	40	+
Zinc Sulphate	40	+
Iron (II) Sulphate	40	+
Iron (III) Chloride	40	+
Tomato Juice	-	+
Saturated Salt Solution	-	+
Formaldehyde	37	+
Formic Acid	2,5	+
Phosphoric Acid	10	+ ^A
Glycerin	-	+
Hydrofluoric Acid	20	+
Hydrogen Peroxide	10	+
Hydrojen Peroksit	25	+
Hydrochloric Acid	37	+ ^A
Hydraulic Fluid	-	+
Urine	-	+
Isopropyl Alcohol	100	+
Jet Fuel	-	+
Calcium Hydroxide	20	+
Calcium Chloride	40	+
Calcium Nitrate	40	+
Kerosene	-	+
Chlorinated Water	2 mg/l	+
Cola	-	+
Chromic Acid	5	+
Lactic Acid	2,5	+
Lactic Acid	10	+
Magnesium Chloride	40	+
Magnesium Nitrate	40	+
Magnesium Sulphate	40	+
Diesel Oil	-	+
Mineral Oil	-	+
Engine Oil	-	+
Nickel Sulphate	33,3	+
Nitric Acid	10	+ ^A

CHEMICAL NAME	%	TEST
Nitric Acid	40	+ ^A
Oxalic Acid	10	+
Oleic Acid	-	-
Paraffin Oil/ Wax	-	+
Cheese Water	-	+
Orange Juice	-	+
Potasyum Hidroksit	25	+
Potassium Hydroxide	50	+
Potassium Carbonate	40	+
Potassium Chloride	40	+
Potassium Nitrate	40	+
Potassium Sulphate	40	+
Brine (Salt Solution)	5	+
Seracare Oil Solvent	20	+
Seracare Oil Solvent	50	+
Liquid Detergent	-	+
Silicone Oil	-	+
Citric Acid	10	+
Citric Acid	50	+
Sodium Acetate	-	+
Sodium Bicarbonate	40	+
Sodium Phosphate	40	+
Sodium Hydroxide	25	+
Sodium Hydroxide	50	+
Sodium Hypochloride Concentrate	Min. %5	+
Sodium Carbonate	10	+
Sodium Carbonate	50	+
Sodium Chlorate	40	+
Sodium Chloride	40	+
Sodium Monochromate Concentrated	-	+
Sodium Monochromate Diluted	-	+
Sodium Nitrate	40	+
Sodium Silicate 40-42 Be	-	+
Sodium Sulfite	40	+
Stearic Acid	10	+
Stearic Acid	40	+
Water	-	+
Sulphuric Acid	10	+
Sulphuric Acid	50	+
Sulphuric Acid	70	+ ^A
Milk	-	+
Wine	-	+
Sugared Water	50	+
Tartaric Acid	10	+
Trisodium Phosphate	40	+
Urea	20	+
Grape Juice	-	+
Olive Oil	-	+ ^A

^A: Discoloration

+: Resistant

-: Not resistant



Certificates of Quality

TS EN 13888 Class RG

TS EN 12004 Class R2T

RG: Reaction Resin Grout

R2: Reaction Resin Improved Adhesive

T: Reduced Slip.