

Technical Data Sheet

JB-EPOXY-ADH-G

Epoxy Adhesive & Grout 3K

1. DESCRIPTION

JengaBond® JB-Epoxy-ADH-G is a three-part, solvent-free epoxy adhesive and grout that exhibits superior bond strength, chemical resistance, and 100% water impermeability. It is specially designed for fixing and grouting tiles and natural stones on metal, steel, aluminium, and fiberglass (GRP/FRP) surfaces. It is also ideal for installing moisture-sensitive natural stones and agglomerates that have a tendency to stain, curl, or warp when installed with standard water-based adhesives.

2. USES

- Fixing tiles and mosaics in swimming pools made of GRP & FRP.
- Installation of moisture-sensitive marble, agglomerates, and natural stones.
- Fixing tiles and stones on impervious surfaces like mild steel, aluminium, and glass.
- Tile fixing and grouting in chemical-prone environments, industrial floors, and commercial kitchens.
- Suitable for both internal and external wall and floor applications.

3. KEY FEATURES & ADVANTAGES

- **Non-Slump Formulation:** Excellent slump resistance, ideal for vertical wall applications without slip.
- **Chemical & Acid Resistance:** Withstands a wide variety of acids, alkalis, and industrial cleaning agents.
- **Water Impermeable:** Protects moisture-sensitive stone and substrates from moisture migration and staining.
- **High Mechanical Strength:** High compressive (60 N/mm²), tensile (15 N/mm²), and flexural (25 N/mm²) strength.
- **Vibration Tolerance:** Engineered to withstand minor dynamic movements and vibration.
- **Grouting Versatility:** Dual-purpose product; easy to grout tile joints from 2 mm to 10 mm width.
- **Colours:** Available in Grey and White.

4. SUITABLE SUBSTRATES

- Fibre Reinforced Plastic (FRP) & Glass Reinforced Plastic (GRP)
- Metals (Mild Steel, Stainless Steel, Aluminium) — surface prepared to SA 2½ profile
- Glass, impervious panels, medium-density fibre-cement sheet, and plasterboard
- Existing sound ceramic tiles, vitrified tiles, and terrazzo
- Concrete, cement sand renders, and screeds

5. TECHNICAL SPECIFICATIONS & PHYSICAL PROPERTIES

Physical Properties (@ 27 ± 1°C)

Property	Specification / Value
Appearance	Part A: Coloured liquid Part B: Straw liquid Part C: White powder
Mixed Density	1.61 g/cc
Pot Life	45 minutes
Open Time	20 – 25 minutes
Adjustability Time	20 – 25 minutes
Setting Time	24 hours
Full Cure	7 days
Temperature Resistance	-30°C to +50°C (Intermittent up to +70°C)
Bond Strength	≥ 1.5 N/mm ² (or concrete failure)
Compressive Strength	60 N/mm ²
Tensile Strength	15 N/mm ²
Flexural Strength	25 N/mm ²
Water Absorption	Nil (100% Impermeable)
Shore D Hardness	70

6. PACK SIZES, COMPONENT RATIOS & COVERAGE

Component Proportioning (Factory-Batched Sets)

Component	2.0 kg Set	4.2 kg Set
Part A (Resin)	0.476 kg	1.000 kg
Part B (Hardener)	0.190 kg	0.400 kg



Part C (Filler Powder)	1.334 kg	2.800 kg
Total Set Weight	2.000 kg	4.200 kg

Coverage Estimates (@ 1.5 mm Solid Bed Thickness)

Pack Size	Theoretical Coverage (@ 1.5 mm Bed)
2.0 kg Set	Approx. 0.82 m ² (8.9 sq.ft)
4.2 kg Set	Approx. 1.73 m ² (18.6 sq.ft)

Coverage Note: Note: Actual coverage will vary depending on substrate profile, tile format/thickness, notched trowel profile, and application technique.

7. APPLICATION INSTRUCTIONS

A. Substrate Preparation

- **General:** The substrate must be clean, structurally sound, and free of oil, grease, wax, curing compounds, release agents, and loose particles.
- **Metal Surfaces:** Steel and aluminium surfaces must be shot-blasted or mechanically abraded to SA 2½ profile and degreased immediately prior to application.
- **FRP / GRP Surfaces:** Abrade lightly to create a mechanical key, clean dust, and wipe clean.

B. Mixing Procedure

- **Proportioning:** JB-Epoxy-ADH is supplied in pre-measured ratios for both 2.0 kg and 4.2 kg sets. Do not split packs or alter proportions.
1. Pour Part B (Hardener) into Part A (Resin) in a clean container.
 2. Mix thoroughly using a slow-speed mechanical drill mixer (< 300 rpm) for 1–2 minutes.
 3. Slowly add Part C (Filler Powder) while mixing continuously until a homogeneous, lump-free mortar of uniform colour is formed.

C. Tile Fixing & Bedding

1. Apply the mixed adhesive to the substrate using a 4 mm or 6 mm notched trowel.
2. For large format tiles or heavy natural stones, apply a thin back-buttering coat to the tile reverse before fixing.
3. Press tiles firmly into position with a twisting motion to achieve full adhesive contact. Adjust within 20–25 minutes.
4. Maintain a minimum joint width of 2 mm (3 mm for thick stone).

D. Usage as a Grout

- Grouting can commence once the adhesive has hardened sufficiently (approx. 8 hours at 23°C / 50% RH).
- Pack the mixed paste firmly into joints (2 to 10 mm) using a rubber grout float. Clean surplus material diagonally before cure.



8. CURING, STORAGE, SAFETY & DISCLAIMER

- **Curing Times:** Light foot traffic: 24 hours. Immersed/swimming pool applications: minimum 48–72 hours before filling water. Full chemical cure: 7 days.
- **Cleaning:** Clean tools and containers immediately with clean water while the material is fresh. Hardened epoxy can only be removed mechanically.
- **Storage & Shelf Life:** 12 months from manufacturing date in original, unopened packing stored dry between +5°C and +30°C. Protect from frost and direct heat.
- **Health & Safety:** Contains epoxy resins and polyamines. Ensure adequate ventilation. Wear gloves, goggles, and protective apparel. In case of eye contact, rinse immediately with clean water and seek medical advice. Keep away from children. Refer to SDS.
- **Warranty & Disclaimer:** BGSB Construction Products Ltd warrants that its products are free from manufacturing defects. Technical advice is given in good faith based on laboratory testing and experience. BGSB accepts no liability for loss arising from improper application or site execution.