

BTL PATCH 682
Structural Epoxy Repair Paste

SEP 2024
REV 06

THE PRODUCT



BTL PATCH 682 is a two-component, solvent-free, high-strength epoxy repair and bonding paste.

It is formulated as a thixotropic, non-slump compound that can be easily applied by trowel or sealant gun, making it ideal for **vertical and overhead repairs**, structural bonding, and precision patching.

The product bonds strongly to most construction materials without the need for a primer, and offers excellent chemical resistance, abrasion resistance, and minimal shrinkage.

USES

BTL PATCH 682 is suitable for a wide range of repair and bonding works, including:

- Structural patching of defective or damaged concrete
- Bonding:
 - Concrete to concrete
 - Steel to concrete
 - Rubber to concrete
 - Natural stones (granite, limestone, marble) to concrete
 - Natural stones to steel
- Filling surface imperfections, gaps, and pinholes
- Bonding all types of tiles
- Base coat for epoxy and polyurethane coatings

BENEFITS

- ✓ High bond strength to various substrates
- ✓ High early and ultimate mechanical strength
- ✓ Water-impermeable formulation
- ✓ Non-slump consistency – ideal for overhead and vertical use
- ✓ Excellent workability and easy application
- ✓ 100% solids – no shrinkage
- ✓ Solvent-free and low VOC

SPECIFICATIONS

Property	Standard	Value
Appearance	-	Thick grey paste
Compressive Strength (7 days)	BS 6319 Part 2	≥ 55 MPa
Tensile Strength (7 days)	BS 6319 Part 7	≥ 12 MPa
Flexural Strength (7 days)	BS EN 13892-2	≥ 20 MPa
Bond Strength (7 days)	ASTM D4541	≥ 3.5 MPa (concrete failure)
Mixed Density	-	1.5 ± 0.05
Working Time	ASTM D6577	1.5 – 2.5 hrs @ 25°C / 1 – 2 hrs @ 35°C
Setting Time	-	24 hrs @ 25°C
VOC	ASTM D2369	< 20 g/L
Recommended Thickness	-	Up to 5 mm
Volume Solids	-	100%

ADDITIONAL INFORMATION

PACKAGING

1 kg and 5 kg pre-measured kits.

YIELD

1 kg pack ≈ 0.67 litres of mixed material.

STORAGE & SHELF LIFE

Store in unopened containers between **5°C and 40°C**, in dry warehouse conditions.

Shelf life: **12 months** under proper storage.

If storage conditions are exceeded, contact BTL Technical Support

SURFACE PREPARATION

Substrates must be clean, dry, structurally sound, and free from oil, grease, dust, and contaminants.

Concrete surfaces must be mechanically prepared (scabbling, grinding, or grit blasting) to remove weak layers.

Steel surfaces must be grit-blasted to remove rust and scale.

Verify cleanliness and adhesion through a **pull-off test** when necessary.

MIXING

Supplied in two pre-measured components (resin base + hardener).

Combine the full contents of both components; **partial mixing is not allowed**.

Use a slow-speed mechanical mixer until a uniform colour and consistency are achieved.

Small 1-kg packs may be mixed by hand, ensuring thorough homogenization.

For cold weather application, store components in a warm area before use.

APPLICATION

Bonding

Apply an even coat to both surfaces.

Bring the surfaces together under light pressure.

Remove excess material and finish neatly.

Keep the assembly immobilized until the resin sets.

Patching / Surface Repair

Apply the mixed paste to the repair area and smooth to levels.

A lightly solvent-dampened trowel may be used to improve finish.

Suitable for vertical and overhead areas due to non-slump formulation.

As a Bonding Primer

Apply a thin, even coat and ensure full wetting of the substrate.

Place the repair material within **~30 minutes at 25°C** after mixing.

Important Notes

Do not expose material to water before final set.

Do not allow mixed material to remain idle; working time reduces significantly with heat.

Application temperature must be **above 5°C** and not in direct sunlight.

CURING

Allow **24 hours at 25°C** before subjecting to foot traffic.

Full mechanical and chemical performance is achieved after **7 days**.

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