

POWER BOND-331



Epoxy Repair & Bonding Mortar

Product Description **Power Bond-331** is a solvent-free, thixotropic, epoxy mortar, based on a combination of epoxy resins and specially selected fillers.

Uses **Power Bond-331** can be used as:

- Adhesive compound for concrete, stone, ceramics, mortar, renderings, steel, iron, aluminium, wood, woodchip boards, polyester, epoxy and glass
- Concrete repairs
- Blow hole filling
- Surface levelling
- Structural adhesive for precast concrete elements, columns, kerbstones etc.
- Crack and surface sealing
- Anchoring bolts and steel dowels

Advantages **Power Bond-331** is an extremely versatile product that offers the following advantages:

- Easy to apply
- Suitable for use on both dry and damp surfaces
- Non-sag product, even at high temperatures
- Hardens without shrinkage
- Excellent mechanical strengths
- High early strength
- High abrasion and impact resistance
- Solvent free

Test Complies with ASTM C 881-78 Type I, Grade 3 Class B+C

Product Data

Type Epoxy Resin and hardening Agent

Form(mixed) Grey

Packaging 6 Kg units (A+B) and 30 Kg pails (A/B) available to order, minimum 500 Kg.

Storage Store in a dry area between 5°C and 35°C. Protect

Condition from direct sunlight

Shelf Life 12 months minimum from production date if stored properly in original unopened packaging.

Technical Data

Density Comp. A: 1.65 Kg/Lit
Comp. B: 1.65 Kg/Lit

Pot Life		Power Bond-331 Normal	Power Bond-331 Rapid	Power Bond-331 31LP
		40°C	-	-
30°C		20 min	-	50 min
20°C		40 min	20 min	90 min

Mixing ratio **Power Bond-331 Normal/Rapid:** Comp. A: B = 3:1 by weight and volume
Power Bond-331 31LP Comp. A: B = 2: 1 by weight and volume

Modulus of elasticity 4, 300 N/mm² (static)

Coefficient of thermal expansion 50 x 10⁻⁶ per °C (temp. range: - 20 °C to + 40 °C)

Mechanical Strengths

	Normal/Rapid Type (after 10 days at +10-20°C)	L.P Type (after 10 days at +20-30°C)
Compressive strength	60 -70 N/mm ²	50 – 60 N/mm ²
after 24 hrs. at + 20°C	~ 40-45 N/mm ²	-----
after 24 hrs. at + 30°	~ 35-40 N/mm ²	-----
after 24 hrs. at + 50 °C	-----	~ 40-45 N/mm ²
Flexural strength	30-40 N/mm ²	20 25 N/mm ²
Tensile strength	15-20 N/mm ²	15-20 N/mm ²
Bond strength to Concrete	3.5 N/mm ²	3-3.5 N/mm ² (concrete failure)
Bond strength to steel	~ 15 N/mm ²	-----

Application Details

Substrate Preparation

All surfaces must be clean, free from frost, standing water and all loosely adhering particles. Cement laitance must be mechanically removed. Metal surfaces (steel and iron) should be free from scale, rust, oil and grease.

Priming	Priming is not required
Mixing	Add hardener (component B) into resin (component A) and mix components A & B together for at least 2 minutes with a mixing paddle attached to a slow speed electric drill (max. 600 rpm) until the material becomes smooth in consistency and a homogeneous grey colour of the mixture is obtained. Material in industrial packing must be stirred well before proportioning and mixing.
Application	When using a thin film adhesive, apply the mixed adhesive to the surfaces with a trowel or spatula. When applying as repair mortar, take into account any formwork that may be required. On vertical surfaces it is non-sag up to 10 mm in thickness. On damp surfaces, ensure that the material is well rubbed into the substrate. Maximum layer thickness: 30mm
Cleaning	Clean all tools immediately after use with a suitable solvent (e.g. Xylene). Hardened material can only be removed mechanically.
Remarks	Optimal working ambient temperatures for each grade are: Power Bond-331 Normal 10°C-30°C Power Bond-331 Rapid 5°C-15°C Power Bond-331 31LP Hot 20°C-40°C When working at a higher temperature than Recommended, the pot life will be shortened. Similarly when working at lower temperatures, the material will become more difficult to apply and takes longer to harden. When applying on damp concrete, work well into substrates.
Safety	
Precautions	Accidental splashes to the skin must be washed off with water and soap. Accidental splashes to the eyes must be rinsed with clean warm water. Seek medical attention without delay. Skin barrier cream, safety goggles and rubber gloves are recommended.
Ecology	Do not dispose off into water or soil in a liquid form.
Toxicity	Non – toxic.
Transportation	Non – hazardous.