

## Epibond

### High Strength Epoxy Gap Filler & Adhesive

#### Description

A two component, solvent free epoxide bonding paste, for use where high bond strengths are required. Ideal for bonding cementitious materials, stone and brick-slips as well as non-porous materials such as granite and metal. Epibond may be used for bonding paving elements in pedestrian and vehicular trafficked areas. Suitable for crack repairs and as a general gap filler in horizontal & vertical locations by trowel or gun-application. Epibond has been designed to comply with the requirements of EN 1504 Part 4.

#### Advantages

- Simple 1:1 by volume mixing ratio
- No special tools or equipment required
- Thixotropic & no priming required
- Grey in colour to match concrete
- Waterproof
- Excellent resistant to a wide range of chemicals
- Durable & long lasting
- Solvent free
- Non-shrink
- Excellent adhesion to brick, concrete, stone, asphalt & metal
- Complies with requirements of EN 1504 Part 4

#### Applications

- Bonding precast units & brick slips
- Repairs to cracks & pipe fractures
- Filling cracks, slots & defects in decks, walls & soffits
- Bonding aggregates to precast panels
- Fixing paving elements

#### Technical Information

Pot life	1-3 hours @ 20°C 2-4 hours @ 10°C
Initial cure	4-5 hours @ 20°C 12 hours @ 10°C
Full cure	7 days @ 20°C

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EN 1504-4 Structural bonding product	
Compressive strength	≥30 MPa
Modulus of elasticity in compression	≥2000 MPa
Shear strength	≥12 MPa

#### Surface preparation

All surfaces should be visibly dry, sound, clean, free from dust oil, grease and all surface contaminants. New concrete should be at least 28 days old.

#### Mixing

Small amounts can be mixed in equal parts 1:1 by volume by gloved-hand, using a trowel or spatula on a clean non-absorbent spot-board. It is essential to mix vigorously, ensuring the hardener is thoroughly blended. Mix on a clean non-absorbent surface until smooth and uniform, in colour and consistency. Always replace tin lids firmly between uses.

To ensure complete and thorough mixing of larger quantities, mix in equal parts 1:1 by volume, using a variable speed drill and gate paddle.



## Technical properties of Epibond

Properties	Standard	Performance Requirements	Declared Value
Appearance			Grey Resinous Paste
Aggregate size			<0.1mm
Layer thickness			1-5 mm
Working time @ 23°C			2 Hours
Density			1400 kg/m <sup>3</sup>
Application temperature			Between +5°C & +35°C
Compressive strength	EN 12190	≥30 MPa	>40 MPa @ 24 Hours >70 MPa @ 7 Days
Modulus of elasticity in compression	EN 13412	≥2 GPa	≥10 GPa
Tensile bending strength			≥6.0 MPa @24 Hours
Flexural strength	BS 6319-3		17,6 MPa (No failure; Flexibility exceeded test)
Modulus of elasticity in flexure	BS 6319-3	≥2 GPa	≥10 GPa
Slant shear bond strength	BS 6319-4		32 MPa
Adhesion - concrete	EN 1542		≥2.0 MPa (Concrete Failure)
Adhesion after freeze/thaw (50 cycles with salt)	EN 13687-1		≥2.0 MPa
Adhesion after thunder showers (30 cycles)	EN 13687-2		≥2.0 MPa
Adhesion after dry cycling (30 cycles)	EN 13687-4		≥2.0 MPa
Minimum cure time prior to vehicular trafficking, only when situated in wearing surface			24 hours @ >15°C 3 days @ >5°C
Carbonation resistance	EN 13295	$d_k \leq \text{ref. concrete}$	$d_k < \text{ref. concrete}$
Capillary absorption	EN 13057	$\leq 0.5 \text{ kg/m}^2 \cdot \text{h}^{0.5}$	$\leq 0.5 \text{ kg/m}^2 \cdot \text{h}^{0.5}$
Cracking tendency	Coutinho Ring Test		No cracking after 180 days

Technical data shown are statistical results and do not correspond to guaranteed minima.

Tolerances are those described in appropriate performance standards.

All testing performed at 23°C, unless otherwise stated.

## Mixing ( continued)

For full pack mixing, using a suitably sized planetary mixer.

Scrape out the entire contents of hardener and base components into the mixer drum. Mix until smooth and uniform, in colour and consistency. Care should be taken to prevent unmixed material remaining on sides and the base of the mixing vessel. For further information contact Nufins technical department.

All steel surfaces should be degreased together with removal of rust, scale and oxide layers. Blast to Swedish Standard SA2.5 on critical situations. Galvanised steel should be treated with Mordant Solution and all residues removed.

Only mix sufficient material as can be used within the working time. In cold conditions the materials should be stored between 10°C and 20°C in order to aid mixing.

## Application Instructions

Mixed Epibond should be applied with a float, spatula or spreader and where possible should be applied firmly onto both surfaces. Standard application layer thickness is 1 - 5mm, though Epibond can be applied to vertical surfaces up to 20mm.

For gun-application, the mixed Epibond should be transferred into a 1 litre plastic cartridge and loaded into a 1 litre skeleton gun. Fill slots up to 60mm nominal depth, from the base upwards, and finish as required to the surface. For further information please contact Nufins technical department.

## Cleaning

Clean all tools and equipment after use with Nuwash.

## Packaging

Epibond is available in 5kg & 10kg units (approximate yield 3.5 litres & 7.1 litres respectively).

1 litre Skeleton Guns & Cartridges must be ordered as required.

Nuwash is available in 5 & 20 litre drums.

## Storage

The shelf life is 12 months when stored unopened in dry, normal conditions and away from direct sunlight. Protect from frost.

If stored at temperatures of 10°C or below the containers should be warmed prior to use as this will greatly aid the mixing procedure.

## Health & Safety

Product Safety Data Sheets (SDS) are available from Nufins. SDS sheets are provided to help customers satisfy their safe handling, use and disposal needs as well as assist with any conformance requirements made locally by health and safety regulations.

SDS are continually updated to provide the latest information to our customers. We therefore recommend contacting our head office to obtain the most recent and accurate SDS before handling and using any product.

## Limitations

Do not apply below 5°C.

In cold conditions it may be necessary to assist curing by the use of tenting and heating.

## Disclaimer

The information contained herein is to the best of our knowledge true and accurate and is given in good faith but without warranty. The user will be deemed to have satisfied themselves independently as to the suitability of our products for their own particular purpose. In no event shall Nufins be liable for consequential or incidental damages.

Users must always refer to the most recent issue of the Technical Datasheets, copies of which will be supplied on request.

## Technical Support

Through our technical department and laboratories we can offer a comprehensive service to specifiers and contractors. Technical contacts are available to provide further information and arrange demonstrations.