

INDUBOUND-VK 4034 ACI

2-COMPONENT, SOLVENT-FREE, MEDIUM VISCOSITY, CHEMICAL & WATER RESISTANT EPOXY BONDING AGENT, PORE-SEALING PUTTY AND SKIM COAT WITH ACTIVE CORROSION INHIBITORS

Product Description:

INDUBOUND VK- 4034 ACI is a 2-component, solvent free (100% solid), moisture-tolerant, non-sag, impervious abrasion chemical & water-resistant epoxy resin based bonding agent with active corrosion inhibitors. INDUBOUND VK- 4034 ACI is supplied as a two-component product, which after mixing produces a smooth & non-sag, paste-like consistency easy to apply on horizontal, vertical and overhead surfaces. Once cured INDUBOUND VK- 4034 ACI provides an easy to clean surface.

Primary Uses:

INDUBOUND VK- 4034 ACI is formulated to be used as a high-modulus, multi-purpose, non-sag bonding agent for horizontal, vertical and overhead surfaces providing a permanent bond greater than the tensile strength of the host concrete. INDUBOUND VK- 4034 ACI is suitable for many applications such as:

- Pore sealing, smoothing putty and skim coat.
- Bonding concrete segments; providing a water-resistant joint.
- Dowel bar anchoring.
- Filing bar pockets.
- Thin film bonding in concrete repairs.
- General bonding & a levelling compound for concrete, mortars, stones, renders, steel, aluminium, polyester, etc.
- As a chemical-resistant tile adhesive.
- As a structural bonding agent for precast concrete.
- Crack and surface sealing.

- Bonding carbon, glass and basalt fibres to concrete surfaces: dry strengthening systems.
- Multipurpose bonding agent.

Advantages:

- Easy to mix and apply.
- Solvent-free, odourless.
- Adheres well to dry & damp surfaces.
- Non-sag: suitable for vertical & overhead applications.
- Shrinkage-free curing.
- Provides excellent mechanical properties such as abrasion impact resistance.
- Homogeneity of the mix is easily determined: each component has a different colour.
- Durable & waterproof, can resist both negative and positive water pressures.
- High chemical resistance.

Standards:

INDUBOUND VK- 4034 ACI is formulated to comply with all requirements of ASTM C-881; "Epoxy Resin- Base Bonding Systems for Concrete" Types I, III and IV, Grade 3, Class B & C as well as EN 1504: "Products and systems for the protection and repair of concrete Structures-Definitions, requirements, quality control and evaluation of conformity" Part 4: Structural bonding. INDUBOUND VK- 4034 ACI also complies with requirements of EN 12004: "Adhesives for tiles-Requirements, evaluation of conformity, classification and designation as Reaction resin adhesives (R)"



Technical Properties:

Appearance (mixed material)	: smooth, non-sag grey consistency.
Specific gravity	: 1.55 ± 0.05 at 20°C
Pot life	: 60 mins at 20°C.
Open time	: 90 mins at 20°C.
Water absorption (ASTM D-570)	: 0.10% by weight.
Compressive strength	: 70 N/mm ² after 7 days.
Tensile strength (ASTM C-638)	: 18 N/mm ²
Flexural strength (ASTM D-790)	: 25 N/mm ²
Bond strength	: 3.5 N/mm ²
Chemical resistance	: very good.

Consumption Table:

The following table may be used as a guideline based on a theoretically smooth, flat, well-primed surface:

Wet film thickness (μm)	Dry film thickness (μm)	Coverage kg/m ²
500	500	0.78
1000	1000	1.55
1500	1500	2.33
2000	2000	3.10

Actual consumption is influenced by surface condition, ambient temperature and application method. Always allow for realistic wastage. Trial areas to determine exact consumption at a specified thickness is always recommended.

Application Guide:

Surface Preparation:

All surfaces must be sound, clean and free from dust, grease, oils, curing agents, mold release agents and other contaminations adversely

affecting bond with the substrate. Steel or metal surfaces should be free from rust or scale in accordance with SA 2& ½ (white metal finish).

Mixing:

Stir each component of INDUBOUND VK- 4034 ACI well before mixing. Pour the entire contents of Component B into Component A container and mix well using an appropriate paddle at 350 RPM for 2 to 5 minutes until a uniform consistent colour is achieved. Empty the mixed material into a clean and dry mixing vessel & mix again for another 3 minutes.

Application:

Skim coat and blowhole filler:

Apply the material once mixed directly to the well-prepared substrate using a suitable steel trowel or spreader. Skim coats up to 3 mm thickness and filling of blowholes up to 7 mm deep can be achieved in a single application. Once applied surfaces may be worked to a smooth finish.

Tile adhesives:

Trowel applied with a 3 mm serrated trowel to the prepared surface ensuring a continuous bed is maintained. Using light pressure fix the tiles in place within the specified "pot life" and adjust within the specified "open time". Do not mix more material than can be tiled (fixed and adjusted) within 90 minutes.

Structural strengthening:

Apply with mixed INDUBOUND VK- 4034 ACI onto the prepared concrete surface with a trowel or spatula at a nominal thickness of 1.5 mm. Within the open time of the epoxy, place the fibre/laminate onto the INDUBOUND VK- 4034 ACI dressing. Using a hard rubber roller, press the laminate into the epoxy resin until the adhesive is forced out on both edges. Remove excess adhesive whilst INDUBOUND VK- 4034 ACI is still unhardened. The glue line should not exceed 3 mm. External reinforcement must not be disturbed for at least 24 hours. INDUBOUND VK- 4034 ACI will reach its design strength after 7 days.



Packaging:

INDUBOUND VK- 4034 ACI is supplied in 6.0 kg & 18.0 kg kits.

Storage & Shelf-Life:

Components A & B have a shelf life of 24 months when original, unopened containers are stored in a dry, well-ventilated warehouse away from moisture, direct sunlight, and extreme temperatures (keep above 6°C and below 35°C) on pallets, elevated from the floor.

Health and Safety:

- INDUBOUND VK- 4034 ACI is non-hazardous during handling, storage and use.
- Do not dispose of components A & B for any unhardened material into water sources or onto the soil. Expired or out-of-pot-life material should be disposed of in accordance with local environmental regulations.
- Splashes on the skin can be washed with soap and warm clean water.

