

BWCT Bond – ACR (acrylic Based Bonding Agent)

BASIC

Description:

BWCTBOND - ACR is a single component, acrylic polymer-based emulsion, designed as an admixture for cementitious mortars and screeds and as a bonding and curing agent for concrete and patch repairs.

Characteristics:

- ▶ Improves bond, flexural and tensile strength of cementitious mixes
- ▶ Reduces the permeability of mortar
- ▶ Single component, easy to apply
- ▶ Suitable for internal and external application

Field of Application:

- bonding agent for bonding new concrete to old concrete
- bonding agent in high strength repair and patching mortar
- bonding agent for GRC mixes
- bonding / curing agent for repair systems

Application:

Surface preparation:

Surface to which **BWCTBOND - ACR** mixes are to be applied should be clean, sound and free of loosely adhering material. Remove all laitance, oil, grease, mold oil or curing compound from concrete surface using wire brush, bush hammer or by blasting. Ensure that reinforcing steel is clean and free from scale and rust. When repairing damaged concrete, ensure that the concrete has been cut back to thoroughly sound substrate.

Bonding slurry:

Wet down absorbent surfaces, such as concrete, brick, stone, ensuring that they are fully saturated but free of surface water. Prepare a bonding slurry of 1 to 2 parts cement to 1 part of **BWCTBOND - ACR** mixed to a lump-free creamy consistency. Using a stiff brush, work the bonding slurry well into the damp surface, ensuring that no pinholes are visible. Do not apply bonding slurry at a thickness in excess of 2mm. If a second coat is necessary, it must be applied at right angles to the first coat to ensure complete coverage. The mixed bonding slurry should be applied at 1- 2 kg/m². For bonding of patch repairs using repair mortars apply undiluted at 5 to 6 m²/L.

BWCTBOND - ACR modified mixes: Sand: Sand should be washed and well graded. cement: **BWCTBOND - ACR** is compatible with all types of OPC, sulphate resisting and high alumina cements. Water: The strong plasticizing action of **BWCTBOND - ACR** greatly reduces the water cement ratio for any given workability. **BWCTBOND - ACR**: Standard dose is 5-8L per 50 kg of cement used.

For more demanding situations, and greater exposure to aggressive environment 15L per 50 kg of cement is recommended. Mixing should be carried out in an efficient concrete mixer. Charge the mixer with required quantity of sand and cement and premix for approximately one minute. Pour the required quantity of BWCTBOND - ACR and mix for two minutes only to avoid excessive air entrainment. Add the water slowly until the required consistency is achieved. Avoid adding excessive water.

Render to vertical surfaces:

Apply the bonding slurry to the prepared surface and then render immediately with **BWCTBOND - ACR** modified mortar. Apply coats to a maximum thickness of 5mm per coat. Several coats can be applied at intervals of 20-30 minutes. Thicker coating can be applied when suitable form work is used. Finish the surface using wooden float or steel trowel.

Screeds and topping

Screeds, patches based on **BWCTBOND - ACR** modified mix should be placed over the tacky bonding slurry, well compacted, and struck off to level. It may be trowelled to the required finish using a steel trowel.

Proper curing of **BWCTBOND - ACR** modified mixes is vital. Small patch repairs can be cured with **BWCTBOND - ACR**. Large areas should be cured by resin based curing compounds, or water mist methods.

Storage & Shelf Life:

Store in a cool, dry place and keep away from all sources of heat and sunlight. In tropical climates, store in air condition rooms. The shelf life is up to 12 months in unopened condition and if stored as per recommendations. excessive exposure to sunlight, humidity and UV will result in the deterioration of the quality of the product and reduce its shelf life.

Health & Safety:

As with all construction chemical products caution should always be exercised. Protective clothing such as gloves and goggles should be worn. Treat any splashes to the skin or eyes with fresh water immediately. Should any of the products be accidentally swallowed, do not induce vomiting, but call for medical assistance immediately.

Properties	Value	Standard
Color	Milky white	—
Specific gravity, [g/cc	1.0±0.053.5	ASTM D 1475
Slant Shear bond Strength	N/mm25 to 45	
Application temperature, [°C]	5 to 45	

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