POWER ACRYLIC BOND

Acrylic emulsion cement modifier and concrete bonding agent

Power Construction Chemicals (Pvt. Ltd.)

PRODUCT DESCRIPTION

Power Acrylic Bond is an acrylic latex liquid bonding agent and an admix (in place of water) for cement mortar patching and resurfacing. Mixed with a cement/sand or gravel combination, it becomes an effective patching and topping mortar having excellent adhesion capabilities and resistance to abrasion, freeze/thaw cycling, industrial chemicals and deicing salts and chemicals.

The mortar produces a strong, durable patch with excellent retention of flexibility and elongation, and does not discolor after exterior exposure to heat, cold and aging. Less water introduced into the mix produces higher density to the mortar, ready workability and less shrinkage. improved hydration of the concrete is maintained by the barrier action of the polymers, which is particularly important on applications of thin overlays and spray coatings that do not have the moisture retention characteristics of a thicker mortar placement.

TECHNICAL DATA

CATEGORY	PARAMETERS
Solids Content	30%, nonflammable; no disagreeable odor
Dry Time	Normal use allows 24 to 48 hours. Heavy traffic allows 4 days
Viscosity	Slightly thicker than water
Pot life	1-2 hours
Set Time	4-6 hours, (Typical sand / cement mix)
Applicable Standards	ASTM C-190, 109, 348 and 321
*A.I.M. Category	Primers and Under coaters
VOC Content Limit	350 grams per liter

*A.I.M. Definition: Primer - A coating formulated and recommended for application to a substrate to substrate and subsequent coatings, Under coater - A coating formulated and recommended to provide a smooth surface for sub sequent coatings.

COMPARISON OF WATER MIXED MORTAR vs POWER ACRYLIC BOND		
STRENGTH	WATER	POWER / BOND
Tensile Compressive Flexural Impact Abrasion Res.	235 2390 610 6 23.8%	645 5715 1585 16 15%
*=%weight loss: lower value higher resistance.		

USES

- An admixture for mortar patching, filling cracks, floor underlayment to level floors before tiling, precast building panels and beams, pavement and bridge deck repairs, setting pipes, spray and fill coats.
- A bonding agent for plaster, stucco, cement and slurry coats.
- An admix for cement base plaster, and stucco mixes and base coats to reduce cracking and improve curing.

INSTALLATIONS

Use on many substratesincluding old concrete, brick, masonry, terrazzo, wood, metals, glass and other

COMPOSITION AND MATERIALS

100% acrylic polymers in water dispersion.

LIMITATIONS

Protect form freezing: repeated freezing and thawing can cause in stability and sedimentation. Not recommended for use with air entraining additives. Apply in temperatures of 45F & above. Do not allow Power Acrylic Bond to dry completely, prior to placing repair material.

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APPLICATION PROCEDURES

Preparation: Remove all loose and/or crumbled material from area to receive the mortar. Sweep or air blow to re move as much dust as possible. Grease and oil stains should be re moved with chemical Cleaner. Rnse thoroughly; do not leave pools of water. Patch area should be free of frost.

Mixing: Use clean, dampened containers and clean, dry sand in the cement mix. Thoroughly premix the sand / aggregate or gravel with the cement. Blend the Power Acrylic Bond into the cement mix, stitting slowly. Typical mixes for 1-gallon Power Acrylic Bond 1-3 cement mix 45# bag pack aged sand mix; graded gravel mix, 80# bag packaged sand mix.

Repair Work: When used as a bonding agent for patch repair, saturate the area with Power Acrylic Bond and place the mortar while the bonding agent is still in a tacky state. DO NOT allow it to dry before placiing the mortar. Use a wet trowel, cleaning it frequently.

DO NOT use a heavy pressure; polymer modified concrete cannot be worked as hard as a pure sand/cement mortar due to wet drag and suface skin formation. Over toweling results in floating the solids to the surface or in treating away the surface skin. when necessary, the surface can be refinished with a trowel approximately 15 min. after initial placement. Retemper the surface with a one-to-one blend of water and Power Acrylic Bond

Sprinkle this liquid on the surface with a fine bristled brush, then trowel lightly. On large areas, screed the mix with a narrow metal straight edge, keeping a buildup of the mortar in advance of the edge; use a short vibratory stoke to achieve the smoothest surface. Two screed working together (first one as a rough striker off, the sccond to give the final surface finish) will reduce the possibility of surface skinning and will provide a smoother finish.

Note: All polymer modifier emulsions for cement have a minimum film forming temperature. Below such temperature, the polymers will not bind together. Also, high humidity, high temperatures and windy conditions can affect the pot life and cure time; when this occurs, a small amount of water can be added to keep the mortar surface with wet burlap to retard too rapid drying and to prevent surface cracking.