



Akabond Acrylics

- Akabond Penetrating Crack Sealer
- Akabond Super Penetrating
- Akabond Knife Grade

Technical Data Sheet

Description

The Akabond Acrylic products are acrylic based adhesives and fillers designed for use with natural stone, especially granite. They range from clear to translucent in color, fast setting, and easy to apply. Penetrating Crack Sealer is a thin liquid that flows like water and is designed to fill fine cracks and reinforce stone. Super Penetrating is low viscosity system for bonding and filling on horizontal surfaces. Knife Grade is a high viscosity paste that is highly thixotropic and resistant to sagging, suitable for use on vertical surfaces. All the formulations are cured using a benzoyl peroxide hardening paste.

Applications

These formulas are best suited for interior applications on natural or cast stones. They are especially well suited for granite and marble applications. Uses include consolidating or laminating slabs, repairing or patching broken stones, reinforcing fragile material, and filling porous or chipped stones.

Coloring

Akabond Acrylic products are easily colored to match any stone using our Polyester Coloring Pastes. The best shade can be obtained by mixing the product to a shade slightly darker than the actual stone color.

Directions for Use

Preparation: All surfaces must be dry and free of grease, oil, efflorescence and dust. The Akabond Acrylic products will bond to moist surfaces; however, a dry surface will provide the best results. Because our products do not bond with polyethylene plastics, containers of this material are ideal for mixing purposes.

Application: If needed, add Polyester Coloring Pastes to the mastic before mixing the mastic with the hardening paste. The correct amount of hardener is 2% to 4% of mastic by weight; this is approximately a 1/2" to 1" bead of hardener for every tablespoon of mastic. Additional hardener speeds the curing time, but causes a deeper yellowing and reduces the bond strength. Too little hardener will result in a mixture that will not cure. Ambient temperature also affects the curing time. Warmer temperatures speed the curing process, while temperatures below 32°F (0°C) will require heating the mixture to start the curing process. The product should be mixed thoroughly and will remain workable until gelling occurs, at which point the product becomes rubbery and excess material may be removed with a razor or chisel. **These products should not be worked once gelling has begun.**

- When bonding stones together, clamps and jigs should be used to ensure a thin bond layer (less than 0.016 inches (0.4 mm)) is achieved, thereby providing the strongest bond. After curing, the stone piece may be further processed without damaging the material.

Clean-Up

After use, equipment may be cleaned with toluene or acetone. Hands should be cleaned with Waterless Hand cleaner or an appropriate solvent such as Cupran.



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Characteristic	Method	Crack Sealer	Super Penetrating	Knife Grade
Color	Visual	Clear	Honey	Translucent
Aspect		Water thin	Thin syrup	Thick paste
Viscosity at 25°C (mPa.s)	ASTM D2393	40	300	1,400,000
Pot life at 25°C (2% hardener, minutes)		13 to 17	8 to 11	8 to 10
Curing Time (Thin film, minutes)		30 to 40	20 to 25	15 to 20
Sag Flow		Yes	Yes	No
Shore D Hardness (ASTM D2240)	Shore D	85	85	83
Tensile Strength (ASTM D638)	psi (MPA)	8,000 (55)	8,000 (55)	7,000 (48)
Compressive Strength (ASTM D695)	psi (MPA)	12,000 (88)	10,000 (69)	9,100 (63)
Flexural Strength (ASTMD790)	psi (MPA)	10,700 (74)	12,000 (88)	10,900 (75)

STORAGE CONDITIONS

- Always keep the container tightly sealed when not in use, and never expose the hardener to temperatures in excess of 100°F (38°C).
- Wood & Stone products are chemically inhibited to extend shelf life and improve product consistency. Storage temperature, however, is an extremely important factor in maximizing the shelf life of the products. The materials should be stored in a cool environment (50°F (10°C)) whenever possible and should never be exposed to direct sunlight.
- If these procedures are followed, these products should have a shelf life of at least one (1) year.

Precautions and Safety

Observe all measures as described on the container and product MSDS. Avoid contact with skin, eyes, and respiratory system. Use protective gloves and work in a well ventilated area.

Guarantee: The information contained in this technical data sheet result from research and tests conducted in our Laboratories under precise conditions. It is the responsibility of the user to determine the suitability of AXSON products, under their own conditions before commencing with the proposed application. AXSON guarantee the conformity of their products with their specifications but cannot guarantee the compatibility of a product with any particular application. AXSON disclaim all responsibility for damage from any incident which results from the use of these products. The responsibility of AXSON is strictly limited to reimbursement or replacement of products which do not comply with the published specifications.