



ACRIFIX® 2R 0195 Satin Reactive Cement

Product and Use

Two-component polymerization adhesive. Thixotropic solution of an acrylic resin in methyl methacrylate, which polymerizes completely upon addition of ACRIFIX® CA 0020 (catalyst).

Applications

Preferably used for bonding matte finish acrylic (PMMA), e.g. ACRYLITE® Satinice velvet texture double and single sided acrylic sheet as well as to other thermoplastics such as ABS, PET, PC, PS, PVC, and to other materials such as wood. The cured joints are almost colorless.

Typical Values of Properties

- Viscosity (Brookfield II/12/68°F/20°C): 3000 to 4000 cp (thixotropic)
- Density/68°F/20°C: ~ 1.02 g/cm³
- Refractive index nD: ~ 1.44
- Color: slight purple tint, milky
- Flash point (Closed Cup): ~ 50°F/10°C
- Solids content: ~ 29%
- Storage stability: 1 year in the original container at 68°F
- Packaging material: HDPE, PP, aluminum and glass
Thinner and Cleaner: ACRIFIX® TC 0030 max. 30 %
- Cleaning agents for equipment: ACRIFIX® TC 0030 or ethyl acetate
- Curing / pot life (at 200 g adhesive, 68°F/20°C):
with 3% ACRIFIX CA 0020: ~ 50 min / ~ 20 min
with 5% ACRIFIX CA 0020: ~ 30 min / ~ 15 min
with 8% ACRIFIX CA 0020: ~ 20 min / ~ 10 min

Safety Measures and Health Protection

Contains methyl methacrylate. Irritates the eyes, respiratory system, and skin. May cause sensitization by skin contact. Keep away from sources of ignition. Do not smoke. In the event of eye contact, rinse immediately with plenty of water, and consult a doctor. Wear suitable protective gloves.

Storage / Shipping

Keep the container tightly closed in a cool place.

Preparing the Parts to be Bonded

Degrease the surfaces to be bonded with water containing a detergent (washing-up liquid), or with ACRIFIX® TC 0030 (thinner/ cleaner). Internally stressed parts must be annealed before bonding in order to avoid stress cracking. The annealing conditions depend on the type of material, the degree of forming, and the thickness of the parts to be bonded. Parts made of extruded or injection molded acrylic should be annealed as a matter of principle. Typical annealing times (at 3mm material thickness) are 2 to 4 hours in an airflow oven at 158-176°F (70-80°C) – also for cast acrylic.

Preparing the Adhesive

Mix ACRIFIX® 2R0195 with 3 to 8% ACRIFIX® CA 0020, avoiding air entrapment as much as possible. In the covered container, any air bubbles may be allowed to rise to the surface of the adhesive, but they can also be removed in a vacuum desiccator (min. 5.9 in. Hg). As soon as the ACRIFIX® 2R 0195 mixture becomes thick and noticeably warm (end of pot life), it should be discarded. Shake **ACRIFIX® 2R 0195 in bottle thoroughly prior to activation with ACRIFIX® CA 0020!**

Bonding Technique

Fix the parts to be bonded in the desired position and apply suitable adhesive tape to seal the joint and to protect surrounding areas. Introduce this adhesive into the joint either directly from the mixing vessel or by means of a glue dispenser or disposable syringe, voiding air entrapment as much as possible.

Other Measures

Roughing with abrasive paper (230 to 320 grit) improves the adhesion to untreated surfaces of cast acrylic. Severely stressed bonds or bonds intended for outdoor exposure should be annealed for 2 to 4 hours at 158-176°F (70-80°C) immediately after curing. The adhesive must



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not get into closed cavities since the curing process is severely hampered in these places and stress cracking in the bonded parts may be the result. It may be colored with colorants.

Properties of Bonds

Further treatment of bonded parts: 2 to 3 hours after curing. Tensile shear strength (v = 2 in./min): Butt joint of ACRYLITE® Satinice sheet one or two-sided velvet texture sheet with itself:

- 5000 to 5800 psi (non-annealed)
- 5800 to 6500 psi (annealed for 5 hrs at 176°F/80°C)

Appearance

Fine matte surface

Limitation of Liability

Our ACRIFIX® adhesives and other auxiliary agents were developed exclusively for use with our ACRYLITE® acrylic sheet products and are specially adjusted to the properties of these materials. Any recommendations and guidelines for workshop practice, therefore, refer exclusively to these products.

Seller's liability shall be limited to the purchase price of the product supplied (or to have been supplied) here-under in respect of which damages are claimed. All technical or other advice by seller, whether or not at buyer's request, with respect to the product, its processing, further manufacture, other use or resale or otherwise, is given gratis by seller and seller shall not be liable for, and buyer assumes all risk of, such advice and the results thereof.

SELLER SHALL IN NO EVENT BE LIABLE FOR ANY INDIRECT, SPECIAL, CONSEQUENTIAL, INCIDENTAL OR OTHER DAMAGES, AND REGARDLESS WHETHER THE CLAIM IS BASED ON WARRANTY, CONTRACT, TORT, STRICT LIABILITY, NEGLIGENCE OR OTHERWISE.

Upon satisfactory proof of claim by the buyer, and as buyer's exclusive remedy, the seller will, within a reasonable time, supply the buyer with a replacement product of the same or equivalent type, free of charge, freight prepaid or, at seller's option, refund the purchase price for the product upon return of the product or other delivered material, or the unused portion thereof. Buyer charges for replacements and returns for credit will not be allowed unless authorized by the seller in writing.

For further information on safety measures, the exclusion of health risks when handling adhesives and at their disposal, see our Safety Data Sheet.

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Semi-finished polymethyl methacrylate (PMMA) products from POLYVANTIS are sold on the European, Asian, African and Australian continents under the registered trademark PLEXIGLAS®, in the Americas under the registered trademark ACRYLITE®, both owned by Röhm GmbH, Darmstadt, or its affiliates.

Fire Precautions

ACRYLITE® sheet is a combustible thermoplastic. Precautions should be taken to protect this material from flames and high heat sources. ACRYLITE® sheet usually burns rapidly to completion if not extinguished. The products of combustion, if sufficient air is present, are carbon dioxide and water. However, in many fires sufficient air will not be available and toxic carbon monoxide will be formed, as it will when other common combustible materials are burned. We urge good judgement in the use of this versatile material and recommend that building codes be followed carefully to assure it is used properly.

Compatibility

Like other plastic materials, ACRYLITE® sheet is subject to crazing, cracking or discoloration if brought into contact with incompatible materials. These materials may include cleaners, polishes, adhesives, sealants, gasketing or packaging materials, cutting emulsions, etc. See the Tech Briefs in this series for more information, or contact your ACRYLITE® sheet Distributor for information on a specific product.

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