



ACRIFIX® 1S 0116 Pure-V
Solvent Cement

Product and Use

ACRIFIX® 1S 0116 Pure-V Solvent Cement is a viscous, clear, colorless to slightly yellowish adhesive free of dichloromethane (methylene chloride).

Applications

Used for making T-joints and bonding narrow areas of all kinds of uncrosslinked ACRYLITE® acrylic sheet, but also for other plastics such as ABS, PS and PVC.

ACRIFIX® 1S 0116 is only slightly gap-filling. The bond is firm within a short time. Rapid further treatment possible. High ultimate strength. Conduct prior tests if necessary.

Typical Values of Properties

- Viscosity (Brookfield II/12/68°F/20°C): 650 to 900 cp
- Density/68°F/20°C: ~ 1.00 g/cm³
- Refractive index n_D⁶⁸: ~ 1.39
- Color: clear to yellowish; color does not affect bonding properties
- Flash point (Closed Cup): < 39°F / 4°C
- Solids content: approx. 10%
- Storage stability: 2 years in original container, if stored properly. Maximum 86°F / 30°C
- Packaging material: glass and aluminum
- Curing: Physically by evaporation and absorption in the bonded articles

Safety Measures and Health Protection

Contains ethyl formate and nitroethane. Harmful by inhalation and swallowing. Irritating to eyes and respiratory system. Keep containers in a well-ventilated place, away from sources of ignition. No smoking. Take precautionary measures against static discharges. In case of fire and/or explosion, do not breathe fumes.

Working Instructions

Normally, a sawn or milled edge of one article is bonded at right angles to the original surface of another. Avoid bonding in areas where a high stress level is to be expected, or anneal the parts beforehand to relieve stress. The parts to be bonded must have a very accurate fit. Grooves and notches may be only partially filled. Clean the adherents with petroleum ether or ACRIFIX® TC 0030 before applying the adhesive. ACRIFIX® 1S 0116 is applied from the tube or a nozzled bottle to the edge of one of the items to be bonded, which, starting from one side, is then placed in contact with the second. After a short holding time, the bond is locked in position. When bonding sawn edges, bubble formation can be reduced by passing the edges over with a scraper or smoothing them with fine, wet abrasive paper (grit 400 to 600 – if possible at right angles to the sheet edge), by milling or diamond cutting before the actual bonding process is started. Slight pressure applied to the bonded surface during drying can also reduce bubble formation.

Note: Whitening around the adhesive joint is due to water condensing from the air (especially if the room temperature is low).

Properties of Bond

Initial bond:

ACRYLITE® extruded sheet sheet ~ 30 – 50 sec.

Subsequent treatment of bonded items:

Not within the first 3 hours

Tensile shear strength (v = 5 mm/min; butt joints, free from bubbles): Annealing increases the strength and also improves the weather resistance.

Material to itself	Non-annealed	Annealed (5 hrs. at 80° C)
ACRYLITE® extruded	4351 ± 725 psi	5366 ± 725 psi



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Appearance

Colorless, clear. More bubbles will form with ACRYLITE® extruded sheet.

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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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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