



## ACRIFIX® 1S 0116

### 1-Component Solvent Adhesive

#### Product and Use

##### Type of Adhesive

1-Component solvent adhesive.

Low viscosity, transparent clear, slightly purple to slightly yellow, physically curing.

##### Applications

For making T-bonds and bonding narrow areas of all kinds of uncrosslinked PLEXIGLAS®, preferably used for PLEXIGLAS® XT. But also for other plastics such as PS, SBC, ABS, PVCu.

ACRIFIX® 1S 0116 is only slightly gap-filling. The bond is firm within a short time. Rapid further treatment possible. High ultimate strength. For use with other products, conduct prior tests.

#### Storage/Transport

Keep container tightly closed in a cool place.  
UN 1133

#### Working Instructions

Normally, a sawn or milled edge of one article is bonded at right angles to the original surface of another. In areas where a high stress level is to be expected, avoid bonding or anneal the parts beforehand to relieve stress. The parts to be bonded must have a very accurate fit. Grooves and notches become only partially filled. Clean the adherents with petroleum ether or isopropyl alcohol 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.

#### More Information

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

**Attention:** When pre-bonding with ACRIFIX® 1S 0116, curing of ACRIFIX® 2R adhesives can be impaired.

ACRIFIX® 1S 0116 can turn yellow as a result of exposure to light, however the yellowing has no effect on the adhesion.

For further details please see our Guideline, "Joining Ref. No.: 311-3"

### Properties of Bonds

#### Initial bond

PLEXIGLAS® GS / PLEXIGLAS® GS: ~ 60 to 90 sec  
 PLEXIGLAS® XT / PLEXIGLAS® XT: ~ 30 to 50 sec

#### Subsequent treatment of bonded items

not within the first three hours

#### Strength of Bonds

The bonds only acquire their final strength after about 24 hours or after immediate annealing as soon as the adhesive has cured.

#### Tensile shear strength (v = 5 mm/min)

Material (to itself)	Non annealed	Annealed (5 h at 80 °C)
PLEXIGLAS® GS OFOO	23 - 33 MPa	32 - 42 MPa
PLEXIGLAS® XT OAOO	25 - 35 MPa	32 - 42 MPa

Annealing increases the strength and also improves the weather resistance.

#### Appearance of Bonds

- Colorless, clear.
- Rather more bubbles with PLEXIGLAS® XT and fewer with PLEXIGLAS® GS.
- Bleeding may occur with colored parts to be bonded.

### Limitation of Liability

Our ACRIFIX® adhesives and other service products were developed exclusively for use with our PLEXIGLAS® products and are specially adjusted to the properties of these materials. Any recommendations and guidelines for workshop practice therefore refer exclusively to these products.

Claims for damages, especially under product liability laws, are ruled out if made in connection with the use of products from other manufacturers.

### Safety Measures and Health Protection

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

Availability according to the current sales range.

Typical Values	
Properties	Values
Viscosity; Brookfield II/6/20 °C	650 - 900 mPa • s
Density (20 °C)	~ 1.0 g/cm <sup>3</sup>
Refractive index n <sub>D</sub> <sup>20</sup>	~ 1.39
Color	transparent clear, slightly purple to slightly yellow; color does not affect bonding properties
Flash point; (DIN 53213)	< 4 °C
Solids content	approx. 10 %
Storage stability	2 years after filling, if correctly stored
Storage temperature	max. 30°C
Packaging materials	Colored glass and aluminum bottles (with inside coating)
Thinner	ACRIFIX® 1S 0116 can be thinned with ACRIFIX® 1S 0117 at any ratio
Curing	Physically, through evaporation and absorption in the bonded articles
Cleaning agents for equipment	Ethyl acetate

**Röhm GmbH**  
Acrylic Products

Riedbahnstraße 70  
64331 Weiterstadt  
Germany

[www.plexiglas.de](http://www.plexiglas.de)  
[www.roehm.com](http://www.roehm.com)

® = registered trademark

PLEXIGLAS and ACRIFIX are registered trademarks of Röhm GmbH, Darmstadt, Germany.  
Certified to DIN EN ISO 9001 (Quality) and DIN EN ISO 14001 (Environment)

This information and all further technical advice is based on our present knowledge and experience. However, it implies no liability or other legal responsibility on our part, including with regard to existing third party intellectual property rights, especially patent rights. In particular, no warranty, whether express or implied, or guarantee of product properties in the legal sense is intended or implied. We reserve the right to make any changes according to technological progress or further developments.

The customer is not released from the obligation to conduct careful inspection and testing of incoming goods. Performance of the product described herein should be verified by testing, which should be carried out only by qualified experts in the sole responsibility of a customer. Reference to trade names used by other companies is neither a recommendation, nor does it imply that similar products could not be used.