



ACRIFIX®  
Adhesive

## ACRIFIX® 1S 0109

### 1-Component Solvent Adhesive

#### Product and Use

##### Type of Adhesive

1-Component solvent adhesive.  
Highly viscous, transparent clear, physically curing.

##### Applications

Special adhesive for use in signage (Adhesion of letters). Preferentially used for bonding uncross-linked PLEXIGLAS® grades and injection moldings made from PLEXIGLAS® molding compound. The joint cross-section should not be too large.

ACRIFIX® 1S 0109 is not suitable for area bonding. ACRIFIX® 1S 0109 is sufficiently gap-filling, quickly forms a skin and shows no capillary action. It allows rapid subsequent treatment of the bonded items and provides high ultimate strength.

For commercial use only.

#### Storage/Transport

Keep container tightly closed in a cool place.  
UN 1593

#### Working Instructions

The parts to be bonded do not need to fit perfectly, since ACRIFIX® 1S 0109 is sufficiently gap-filling. The parts to be bonded must be grease free. Cleaning with petroleum ether or isopropyl alcohol is recommended. For ease of processing, fill a small quantity of ACRIFIX® 1S 0109 into a glue dispenser, e. g. small polyethylene bottle with nozzle. The air bubbles produced disappear again after a short time. Place the parts to be bonded in the required position (not pressed together), then continuously apply ACRIFIX® 1S 0109 by means of the nozzle. The adhesive stops flowing after 1 to 2 minutes, enabling the parts to be further bonded in a different position.

#### More Information

Whitening around the adhesive joint is due to water condensing from the air (especially if the room temperature is low). The larger the cross-section of the joint, the more likely bubble formation is. It is recommended to let the joint air for one day before subsequently applying ACRIFIX® 2R 0190.

For more details please see our Guideline "Joining PLEXIGLAS®", Ref. No. 311-3



**Properties of Bonds**

**Initial bond**

PLEXIGLAS® with itself: ~ 5 to 10 sec

**Subsequent treatment of bonded items**

Although the parts fixed in relation to each other can be moved after only 1 to 2 minutes without changing the joint, the bonds only acquire good strength after about one hour. Subsequent treatment of bonded parts should not be performed until at least 10 to 12 hours later.

**Strenght 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)**

<b>Material (to itself)</b>	<b>Non annealed</b>	<b>annealed (5 h at 80 °C)</b>
PLEXIGLAS® GS OFOO	19- 29 MPa	30 - 40 MPa
PLEXIGLAS® XT OAOOO	17 - 27 MPa	20 - 30 MPa

Annealing increases the strength and also improves the weather resistance.

**Appearance of Bonds**

- Colorless, clear.
- Bubble formation possible,
- Bleeding of colorants.  
in colored bonded items possible.

**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:	3000 - 3400 mPa • s
Density (20 °C)	~ 1.3 g/cm <sup>3</sup>
Refractive index n <sub>D</sub> <sup>20</sup>	~ 1.44
Color	Transparent clear
Flash point; DIN 53213	no flash point
Solids content	12 - 15%
Storage stability	2 years after filling, if correctly stored
Storage temperature	max. 30 °C
Packaging materials	Colored glass and aluminum
Thinner	Dichloromethane
Curing	Physically, through evaporation and absorption in the bonded articles
Cleaning agent for equipment	Ethyl acetate

**POLYVANTIS GmbH**

Riedbahnstraße 70  
64331 Weiterstadt  
Germany

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

® = registered trademark

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. 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.