

### 1-Component Solvent Adhesive

#### Product and Use

##### Type

1-Component solvent adhesive.  
Thin-bodied, clear, light yellowish.

##### Applications

For making T-bonds and bonding narrow areas of all grades of uncrosslinked PLEXIGLAS®, preferentially for crack-free bonding also of internally lightly stressed parts, e.g. those made of extruded PLEXIGLAS® XT and injection moldings made from PLEXIGLAS® molding compound.

Cracking only occurs in parts with extreme internal stresses. ACRIFIX® 107 is not gap-filling. The bond is firm within a short time. Rapid further treatment possible. High ultimate strength. Conduct prior tests with other plastics.

**For commercial use only.**

##### Storage/Transport

Keep container tightly closed in a cool place.  
UN 2810

##### Working Instructions

Normally, a sawn or milled edge of one article is bonded at right angles to the original surface of another. The parts to be bonded must have a very accurate fit. Grooves and notches are not filled. Clean the adherents with petroleum ether or isopropyl alcohol before applying the adhesive. Either of two methods may be used:

a) Lock the two parts in position without adhesive and introduce ACRIFIX® 1S 0107 into the joint from a small nozzled bottle. The adhesive penetrates the joint by capillary action. From a sheet thickness of c. 5 mm onwards, the parts should first be put together with the aid of

spacers (e.g. stainless steel wire, c. 0.1 to 0.5 mm  $\varnothing$ ) at right angles to the sheet edge, which are pulled out after introduction of the adhesive.

b) The appropriate edge of one of the parts to be bonded is dipped into ACRIFIX® 1S 0107 and placed in contact with the second part after allowing sufficient time for solvent action – PLEXIGLAS® XT about 20 sec., PLEXIGLAS® GS about 60 sec. After a short holding time, the bond is locked in position. When bonding sawn edges, bubble formation can be reduced by smoothing the edges prior to bonding, with a scraper or fine, wet adhesive paper, grit 400 to 600, (if possible at right angles to the sheet edge), by milling or diamond cutting.

##### Further Indications

1) The maximum pot life of ACRIFIX® 1S 0107 in an open dish is about 30 min. (or shorter, depending on the ambient temperature, because its composition changes by evaporation of predominantly one component.

2) 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 0107, curing of ACRIFIX®2R adhesives can be impaired.

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

To increase viscosity, ACRIFIX® 1S 0107 can be mixed at any ratio. For further details please see our Guidelines, "Joining Ref. No.: 311-3"

## Properties of Bonds

### Initial bond:

PLEXIGLAS® GS/PLEXIGLAS® GS: ~ 30 sec

PLEXIGLAS® XT/PLEXIGLAS® XT: ~ 5 sec

### Subsequent treatment of bonded items:

not within the first three hours

### Tensile shear strength (v = 5 mm/min; butt joints, free from bubbles):

Annealing increases the strength and also improves the weather resistance.

PLEXIGLAS® GS 233/0F00:

23 ± 5 MPa (non-annealed),

28 ± 5 MPa (annealed for 5 hrs at 80 °C)

PLEXIGLAS® XT 20070/0A000:

28 ± 5 MPa (non-annealed),

33 ± 5 MPa (annealed for 5 hrs at 80 °C)

### Appearance:

Colorless, clear.

Rather more bubbles with PLEXIGLAS® XT and fewer with PLEXIGLAS® GS.

Bleeding may occur with colored grades.

### 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.**

**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; Brookfield6A/12/20 °C:	≤ 15 mPa · s
Density (20 °C):	~ 1.22 g/cm <sup>3</sup>
Refractive index n <sub>D</sub> <sup>20</sup> :	~ 1.408
Color:	clear to yellowish; color does not affect bonding properties
Flash point DIN 51758:	no flash point
Solids content:	≤ 1 %
Storage stability:	2 years after filling, if correctly stored
Storage temperature:	max. 30 °C
Packaging materials:	Colored glass and aluminum
Curing:	physically, by evaporation and absorption in the bonded articles.
Cleaning agents for devices:	Ethyl acetate

## Safety Measures and Health Protection

### Labeling according to Regulation (EC) 1272/2008

**Warning**, contains dichloromethane, nitro methane.



Harmful if swallowed. (H302)

Suspected of causing cancer. (H351)

Use personal protective equipment as required. (P281)

Wash hands thoroughly with soap and water after handling. (P264)

IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell. (P301 + P312)

IF exposed or concerned: Get medical advice/attention. (P308 + P313)

Store locked up. (P405)

Dispose of contents/container in accordance with local regulation. (P501)

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Evonik is a worldwide manufacturer of PMMA products sold under the PLEXIGLAS® trademark on the European, Asian, African and Australian continents and under the ACRYLITE® trademark in the Americas.

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