

ACRIFIX® 1S 0106

1-Component Solvent Adhesive

Product and Use

Type

1-Component solvent adhesive.
Viscous, clear, colorless to slightly yellowish, physical curing.

Applications

For making T-bonds and bonding narrow areas of all grades of uncrosslinked PLEXIGLAS®, preferentially for crack-free bonding also of lightly internally 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® 1S 0106 is only gap-filling to a certain extent. The bond is firm within a short time. Rapid further treatment is 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 become only partially filled. Clean the adherents with petroleum ether or isopropyl alcohol before applying the adhesive. ACRIFIX® 1S 0106 is applied from 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 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.

Slight pressure on the adhesive surface during curing can also avoid formation of bubbles.

Notes:

Attention: When pre-bonding with ACRIFIX® 1S 0106, curing of ACRIFIX® 2R adhesives can be impaired.

ACRIFIX® 1S 0106 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 Guidelines, "Joining Ref. No.: 311-3"

Properties of Bonds

Initial bond:

PLEXIGLAS® GS/PLEXIGLAS® GS: ~ 20-30 sec
PLEXIGLAS® XT/PLEXIGLAS® XT: ~ 5-10 sec

Subsequent treatment of bonded items:
not within the first three hours

Tensile shear strength ($v = 5 \text{ mm/min}$; butt joints, free from bubbles):

Annealing increases the strength and also improves the weather resistance.

PLEXIGLAS® GS 233/0F00:

25 ± 5 MPa (non-annealed),

30 ± 5 MPa (annealed for 5 hrs at 80 °C)

PLEXIGLAS® XT 20070/0A000:
28 ± 5 MPa (non-annealed),
30 ± 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.

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: Immediately call a POISON CENTER or doctor/physician if you feel unwell. (P301+P310)

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

Stored locked up. (P405)

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

Typical Values

Properties	Values
Viscosity; Brookfield II/12/20 °C:	750–1000 mPa · s
Density (20 °C):	~ 1.21 g/cm ³
Refractive index n _D ²⁰ :	~ 1.42
Color:	clear to yellowish; color does not affect bonding properties
Flash point DIN 51758:	no flash point
Solids content:	9 to 11 %
Storage stability:	2 years after filling, if correctly stored
Storage temperature:	max. 30 °C
Packaging materials:	colored glass and aluminum
Thinner:	ACRIFIX® 1S 0106 should be used undiluted as far as possible. It may only be diluted with ACRIFIX® 1S 0107, but this causes a texture to form in the dried adhesive bead.
Curing:	physically, by evaporation and absorption in the bonded articles.
Cleaning agents for equipment:	ethyl acetate

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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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Evonik Performance Materials GmbH

Acrylic Polymers

Kirschenallee, 64293 Darmstadt, Germany

info@plexiglas.net www.plexiglas.net www.evonik.com

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