ACRIFIX®

Technical Information

ACRIFIX® 1S 0109

1-Component Solvent Adhesive

Product and Use

Type

1-Component solvent adhesive.
Highly viscous, colorless, clear

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 adhesives stops flowing after 1 to 2 minutes, enabling the parts to be further bonded in a different position.

Notes:
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®/PLEXIGLAS®: ~ 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.

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

Annealing increases the strength, but may lead to more pronounced bubble formation.

PLEXIGLAS® GS 0F00:
24 ± 5 MPa (non-annealed),
35 ± 5 MPa (annealed for 5 hrs at 80 °C)

PLEXIGLAS® XT 0A000:
22 ± 5 MPa (non-annealed),
25 ± 5 MPa (annealed for 5 hrs at 80 °C)

Appearance:

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.
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

Causes skin irritation. (H315)
Causes serious eye irritation. (H319)
May cause respiratory irritation. (H335)
May cause drowsiness or dizziness. (H336)
Suspected of causing cancer. (H351)
May cause damage to organs through prolonged or repeated exposure. (H373)
Wear protective gloves/protective clothing/eye protection/ face protection. (P280)
Do not breathe dust/fume/gas/mist/vapours/ spray. (P260)
IN CASE OF CONTACT WITH EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. (P305+P351+P338)
IF exposed or concerned: Get medical advice/attention. (P380+P313)
Store in a well-ventilated place and keep container tightly closed. (P403+P233)
Dispose of contents in accordance with local regulation. (P501)

Typical Values

Properties	Values
Viscosity; Brookfield II/6/20 °C:	3000 bis 3400 mPa · s
Density (20 °C):	~ 1.23 g/cm3
Refrative index n_D^{20}:	~ 1.44
Color:	Colorless, clear
Flash point DIN 53213:	no flash point
Solids content:	9 to 11 %
Storage stability:	2 years after filling, if correctly stored
Storage temperature:	max. 30 °C
Packaging materials:	Aluminum (glass)
Thinner:	dichloromethane
Curing:	physically, through evaporation and absorption in the bonded articles
Cleaning agent for equipment:	ethyl acetate

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