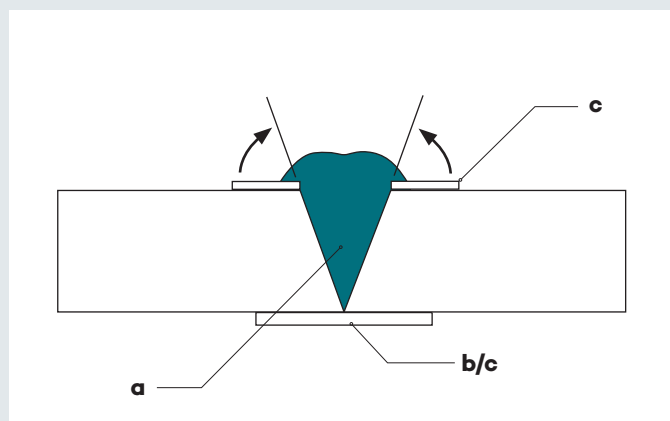


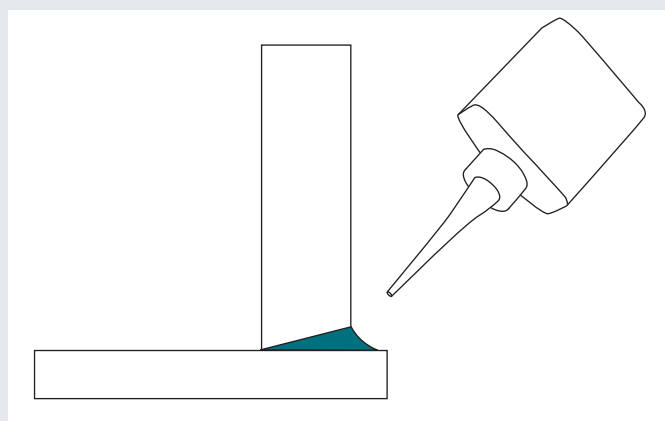


ACRIFIX®
Adhesive

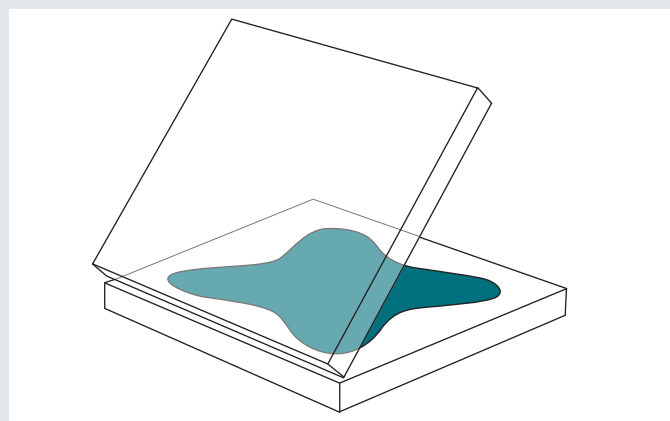
ACRIFIX® 1R 0192
1-Component Polymerization Adhesive



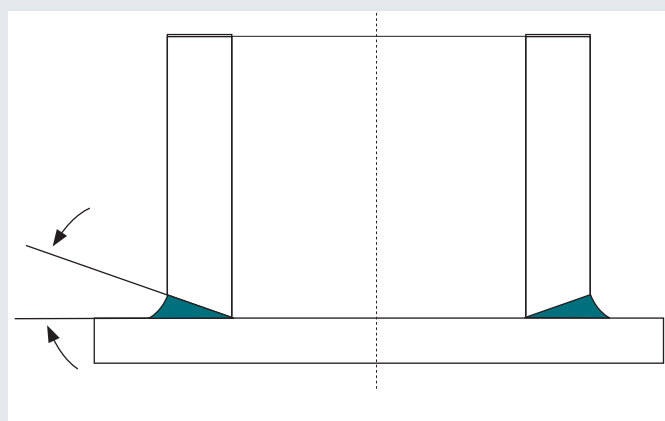
V-groove:
a = Adhesive
b = Adhesive tape with nonadhesive center strip
c = Adhesive polyester or cellulose tape



Angle joint:
Application of adhesive by PE glue dispenser.



Area bonding:
Apply adhesive as a four-lobed dollop; fold down cover carefully from the edge.



Bonding a tube end



Product and Use

Type of Adhesive

1-Component polymerization adhesive.
Transparent clear, slightly purple, viscous solution of an acrylic polymer in methyl-methacrylate, which polymerizes on exposure to light.

Applications

Preferably for transparent edge and small area bonds of clear acrylics, i. e. PLEXIGLAS® GS, PLEXIGLAS® XT and parts made of PLEXIGLAS® molding compound. Also suitable for other clear plastics such as PC or PS. For other materials, conduct prior tests. ACRIFIX® 1R 0192 is gap-filling. The cured joints are almost colorless.

For commercial use only.

Storage/Transport

Keep container tightly closed in a cool place **protected against light.**
UN 1133

Working Instructions

Preparing the Parts to Be Bonded

Degrease the surfaces to be bonded with ACRIFIX® TC 0030, isopropyl alcohol or petrol ether. Internally stressed parts must be annealed before bonding in order to avoid stress cracking. The annealing conditions depend on the type of material, the degree of forming and the thickness of the parts to be bonded. Parts made of extruded and injection-molded acrylic should be annealed as a matter of principle. Typical annealing times – also for cast acrylic – are 2 to 4 hours in an airflow oven at 70 to 80 °C.

Bonding Technique

Fix the parts to be bonded in the desired position (avoid shading) and apply suitable adhesive tape to the joint and to protect surrounding areas (see drawings). Introduce ACRIFIX® 1R 0192 into the joint either directly from the tube or by means of a glue dispenser or disposable syringe, avoiding bubble formation. Then expose the joined parts to a suitable light source (see Curing). For this, „ordinary“ fluorescent lamps of illuminant type 840 are to be preferred, since they provide optimal curing of ACRIFIX® 1R 0192 and require no special protective measures against UV radiation at the workplace.

More Information

Roughening-up with water abrasive paper (grit 320 to 400) or non-woven improves the adhesion to untreated surfaces of cast acrylic.

To improve the joint annealing after joining is recommended. Typical annealing times are 2 to 4 hours in airflow oven at 70 to 80°C. Severely stressed bonds or those intended for outdoor exposure should be annealed as a matter of principle.

ACRIFIX® 1R 0192 must not get into closed cavities (e.g. double glazing, tube interiors), since the curing process is severely hampered at such sites, and there is a risk of stress cracking in the bonded parts. If cavity adhesion cannot be prevented, the cavity must be rinsed gently with water for at least 20 minutes. In case tube adhesions it is also recommended to gently blow air through the tube during bonding.

For more details see our Guideline “Joining, Ref. No. 311-3”.



Properties of Bonds

Subsequent treatment of bonded items

- 2 to 6 hours after curing,
- sanding and polishing after 24 hours.

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)		
Material (to itself; cured with illuminant 840)	non-annealed	annealed (5 hrs at 80 °C)
PLEXIGLAS® GS OFOO	23 - 33 MPa	43 - 53 MPa
PLEXIGLAS® XT OAOOO	27 - 37 MPa	45 - 55 MPa

Annealing increases the strength and also improves the weather resistance.

Appearance of Bonds

Clear, almost colorless; surface may be slightly yellowish.

Limitation of Liability

Our ACRIFIX® adhesives and other auxiliary agents 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.

Curing (System: polymerization by light)

	Illuminant	curing period (at 25 °C)
Bond/lamp and lamp/lamp spaced at approx. 20 cm and 10 cm, respectively	Fluorescent lamp, illuminant 840 Cool White	15 - 30 min
	Superactinic UV-A fluorescent lamp, e. g. Philips TL.../05	10 - 15 min
	Tanning studio UV-A fluorescent lamp, e. g. Philips CLEO Performance	10 - 15 min
	Diffuse ambient lighting	1.5 - 3 h
	Sunlight	10 - 20 min
	Pot life (at 200 g in glass vessel exposed to diffuse ambient lighting)	~ 30 min (at 25 °C)

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	1600 - 2000 mPa • s
Density (20 °C)	~ 1.02 g/cm ³
Refractive index n _D ²⁰	~ 1.44
Color	transparent clear, slightly purple
Flash point (DIN 53213)	~ 10 °C
Solids content	30 - 34 %
Storage stability	2 years after filling, if correctly stored
Storage temperature	max. 30°C
Packaging materials	Colored glass and aluminum
Thinner	ACRIFIX® TC 0030, max. 10 %
Cleaning agents for equipment	ACRIFIX® TC 0030, ethyl acetate

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® = registered trademark

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