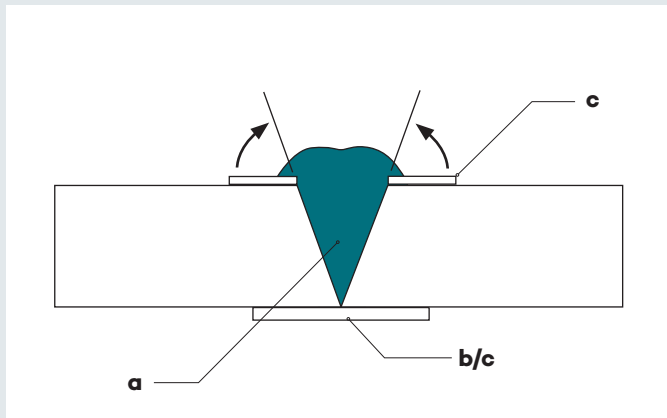


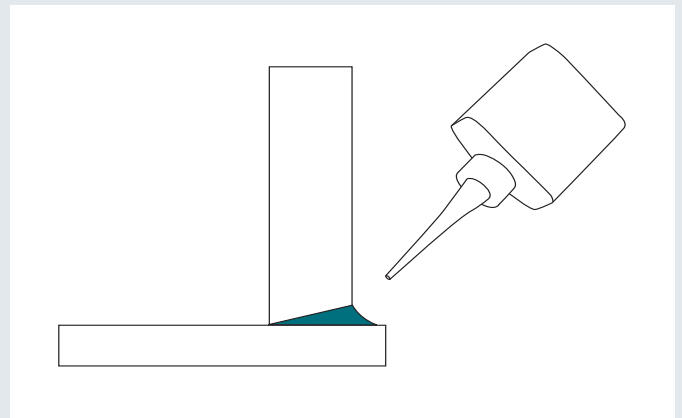


ACRIFIX®
Adhesive

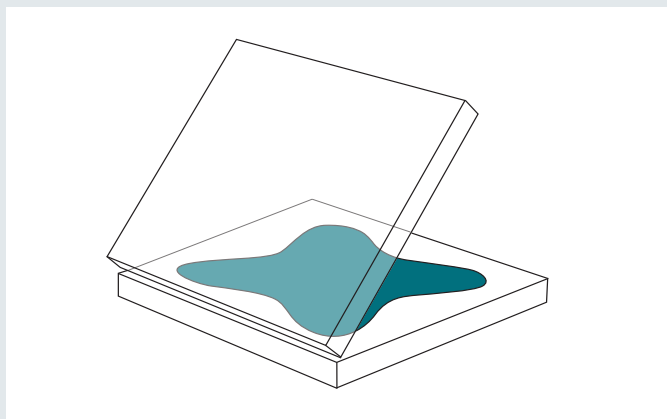
ACRIFIX® 2R 2019
2-Component Polymerization Adhesive



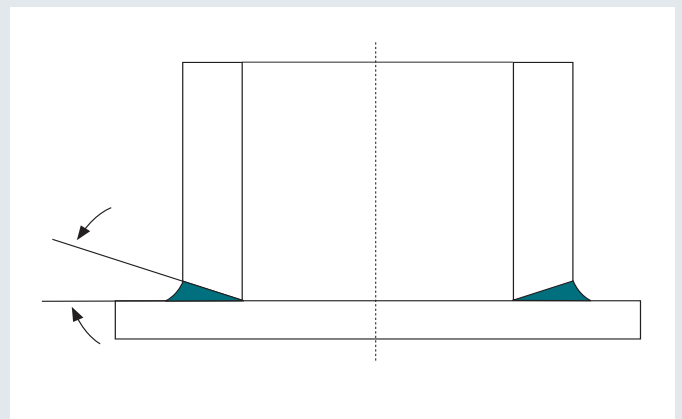
V-groove:
a = Adhesive
b = Adhesive tape with nonadhesive center strip
c = Polyester or cellulose adhesive tape



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

2-Component polymerization adhesive.
Transparent clear to slightly purple, solution of low viscosity of an acrylic polymer in methyl methacrylate, which polymerizes upon addition of ACRIFIX® CA 0020. Gap-filling.

Applications

Adhesive primarily for inside fillet joints (display case design). Preferably used for bonding acrylic (PMMA), especially PLEXIGLAS® GS, PLEXIGLAS® XT, or components made of PLEXIGLAS® molding compounds, with each other. Also suitable for other materials such as ABS, PC, PS, PVC-U, SAN or wood. For other materials, conduct prior tests. ACRIFIX® 2R 2019 is gap-filling. The cured joints are smooth and almost colorless.

Storage/Transport

Keep container tightly closed in a cool, dry place.
UN 1133

Working Instructions

Preparing the Parts to Be Bonded

Degrease the surfaces to be joined using ACRIFIX® TC 0030, isopropyl alcohol, or petroleum ether. Internally stressed parts must be annealed before joining 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. Bonded parts made of extruded or injection molded acrylic generally always need to be annealed. Typical annealing times – also for cast acrylic – are 2 to 4 hours in an airflow oven at 70 to 80°C.

Preparing the Adhesive

Add 3 to 6 % ACRIFIX® CA 0020 to ACRIFIX® 2R 2019 and stir until no more striation is visible. Air bubbles rise to the surface of the adhesive best in a closed container. Avoid vacuum degassing. Do not use the ACRIFIX® 2R 2019 mixture any longer once it has thickened and is noticeably warm (end of the pot life).

Bonding Technique

Fix the parts to be bonded in the desired position and apply suitable adhesive tape to seal the joint and to protect surrounding areas (see drawings). Introduce ACRIFIX® 2R 2019 into the joint either directly from the mixing vessel or by means of a glue dispenser or disposable syringe, and avoid bubble formation.

More Information

Adhesion to unfinished surfaces of cast acrylic can be improved by roughening the areas with water abrasive paper (grit 320 to 400) or non-woven.

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® 2R 2019 must not get into closed cavities (e.g. double glazing, tube interiors etc.), as these conditions significantly impair the curing process, posing the risk of cracks forming in the part to be bonded. If bonding in a cavity cannot be avoided, the cavity must be gently flushed with air for at least 20 minutes after adhesive application. For bonding tubes together, we likewise recommend gently flushing the inside of the tubes during the bonding process.

ACRIFIX® 2R 2019 can be colored using products such as ACRIFIX® CO 9073, CO W074, CO 3075, CO 5076, or CO 1077.

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



Properties of Bonds

Further treatment of bonded parts

- 3 to 4 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)	non-annealed	annealed (5 hrs at 80 °C)
PLEXIGLAS® GS OFOO	38 – 44 MPa	55 – 60 MPa
PLEXIGLAS® XT OA000	38 – 44 MPa	55 – 60 MPa

Annealing increases the strength and also improves the weather resistance.

Appearance of Bonds

The cured bonds are almost colorless to slightly yellow. With increasing amounts of ACRIFIX® CA 0020 (> 3%) a yellowing of the bond is possible. Annealing temperatures > 70°C could also create yellowing. Without annealing it is likely that after a certain time yellowing or whitening due to micro cracks of the joint are possible. The joint whitens slightly upon exposure to water, especially for non-annealed bonds.

A possible increased yellowing of the joint over a certain period, due to external influences such as higher share of hardener ACRIFIX® CA 0020, missing annealing or UV radiation, cannot be fully avoided.

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.

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	Properties
Viscosity; Brookfield II/6/20 °C	500 – 800 mPa • s
Density (20 °C)	~ 1.02 g/cm ³
Refractive index n _{D20}	~ 1.44
Color	transparent clear to slightly purple
Flash point; DIN EN ISO 13736	~ 9°C
Solids content	ca. 25 – 29 %
Shelf life	2 years from filling under proper storage conditions
Storage temperature	max. 30°C
Packaging materials	Colored glass, aluminium
Curing / pot life (at 200 g adhesive, 20 °C) with 3 % ACRIFIX® CA 0020	~ 60 min / ~ 25 min
Cleaning agents for equipment	ACRIFIX® TC 0030 or ethyl acetate

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® = registered trademark

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