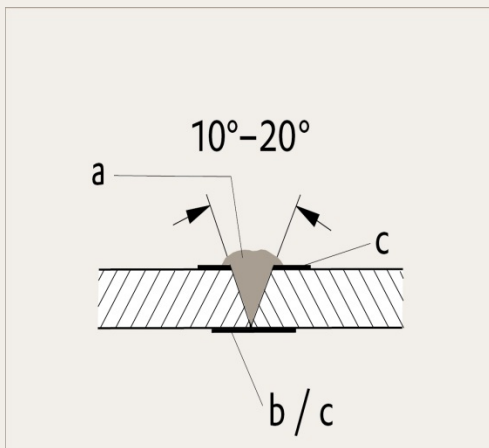


Technical Information

ACRIFIX® 2R 1900

2-Component Polymerization Adhesive

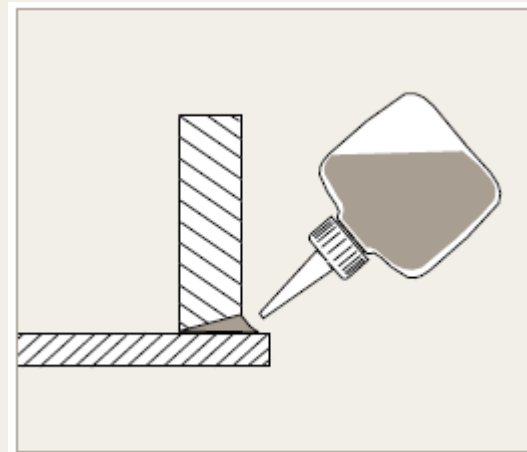


V-groove:

a = Adhesive

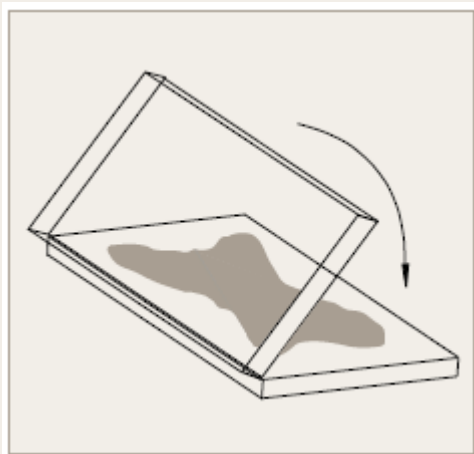
b = Adhesive tape with nonadhesive center strip

c = Adhesive polyester or PE-tape



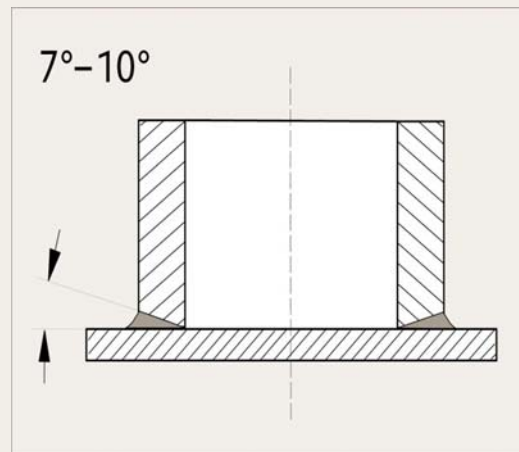
Angle joint:

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

2-Component polymerization adhesive.

Clear, slightly purplish solution of low viscosity of an acrylic polymer in methyl methacrylate, which cures completely upon addition of ACRIFIX® CA 0020.

Applications

Preferably used for bonding acrylic (PMMA), i.e. PLEXIGLAS® GS, PLEXIGLAS® XT or parts made from PLEXIGLAS® molding compounds with each other, but also for other materials such as ABS, CAB, PS, PVC, SMS, UP and wood. The cured joints are almost colorless.

ACRIFIX 2R 1900 is only suited for indoor use.

Storage/Transport

Keep in the original container, in a cool place. 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.

Preparing the Adhesive

Add 3 to 6 % ACRIFIX® CA 0020 to ACRIFIX® 2R 1900 and stir until no more striation is visible.

In the covered container, air bubbles may be allowed to rise to the surface of the adhesive.

Avoid vacuum degassing.

As soon as the ACRIFIX® 2R 1900 mixture becomes thick and noticeably warm (end of pot life), it should no longer be used.

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 1900 into the joint either directly from the mixing vessel or by means of a glue dispenser or disposable syringe, and avoid bubble formation.

Other Measures

Roughening-up with abrasive paper (grit 230 to 320) improves the adhesion to untreated surfaces of cast acrylic. Severely stressed bonds or those intended for outdoor exposure should be annealed for 2 to 4 hours at 70 to 80 °C **after** curing. ACRIFIX® 2R 1900 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. ACRIFIX® 2R 1900 may be colored with ACRIFIX® CO 9073, CO W074, CO 3075, CO 5076, CO 1077, for example.

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.

Tensile shear strength (v = 5 mm/min):

Material (to itself)	annealed	
	non-annealed	(5 hrs at 80 °C)
Cast acrylic:	36-42 MPa	42- 48 MPa
Extruded acrylic:	32-38 MPa	40- 46 MPa

Appearance

Almost colorless to slightly yellowish. With higher amounts of ACRIFIX CA 0020 and ACRIFIX TH 0032, and temperatures > 70°C, discoloration is possible. The joint whitens slightly upon exposure to water.

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.

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 (EC) 1272/2008
Danger, contains methyl methacrylate



Highly flammable liquid and vapour. (H225)
Causes skin irritation. (H315)
May cause an allergic skin reaction. (317)
May cause respiratory irritation. (H335)
Keep away from heat/ sparks/open flames/hot surfaces. — No smoking. (P210)

Wear protective gloves/protective clothing/eye protection/ face protection. (P280)

Avoid breathing dust/fume/gas/mist/vapours/ spray. (P261)

IN CASE OF CONTACT WITH SKIN: Wash with plenty of soap and water. (P302+P352)

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

Typical values

Properties	Values
Viscosity; Brookfield II/12/20 °C:	450 a 550 mPa · s
Density (20 °C):	~ 1,02 g/cm ³
Color:	clear, slightly purplish
Flash point (DIN 53213):	~ 10 °C
Storage stability:	2 years after filling, if correctly stored
Storage temperature:	max. 30°C
Packaging materials:	colored glass, aluminum
Thinner:	Max. 10% ACRIFIX® TC 0030
Cleaning agents for equipment:	ACRIFIX® TC 0030 or ethyl acetate
Curing / pot life (at 200 g adhesive, 20 °C) with 3 % ACRIFIX® CA 0020:	~ 50 min / ~ 20 min

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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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