

ALTUGLAS® ADHESIVE SPC

A highly fluid, transparent, single-component glue. This adhesive comprises a mixture of solvents and is specifically formulated for bonding Tuffak® polycarbonate, Altuglas® EX and Altuglas® EI sheet.

APPLICATIONS

Altuglas® Adhesive SPC has powerful solvent properties that penetrate deep into the surfaces of the components to be bonded, ensuring firm joints that are excellent in appearance.

Its high volatility makes the process very rapid and allows assembly of multiple components in a very short space of time.

Being highly fluid, Altuglas® Adhesive SPC is easy to apply to the surfaces being bonded, either from a syringe or polyethylene container fitted with an applicator tip (tube, needle or sponge).

It may be used on smooth or slightly rough surfaces, but best results (visually and mechanically) are obtained with edges that have previously been levelled or finished with a diamond polisher.

TYPES OF BOND

Edge-to-surface joints (boxes, dividers, embossed lettering for signs)

Edge-to-edge joints

Angled joints (display cases, boxes, containers)

All kinds of joints on small components.

PROPERTIES

Viscosity at 20°C (Brookfield) : < 15 mPa.s

Density at 20°C : 1.28 g/cm³

Flash point (closed vessel) : 35°C

Solid content : 0%

Storage temperature : between 15 and 30°C

PRECAUTIONS IN USE

Altuglas® Adhesive SPC is extremely volatile. Evaporation due to prolonged exposure to the air significantly reduces the performance of the glue. We strongly recommend that receptacles be closed tightly as soon the required quantity has been taken. Fit protective caps to applicator tubes to avoid them becoming blocked. Adhesive should not be left in them for more than 24 hours.

TOXICITY AND SAFETY

A number of precautions are required when using Altuglas® Adhesive SPC:

- Do not inhale the vapour
- Work in a well-ventilated area
- Avoid contact with the skin and eyes

As the product is inflammable, do not smoke when using the glue and keep away from naked flames.

For further information, see the Safety Data Sheet.

STORAGE PRECAUTIONS

Altuglas® Adhesive SPC must be stored in its original containers, properly sealed, in a cool, dry place at a maximum temperature of 30°C.

The product may be stored for up to two years from the date of packing.

When using, draw off the quantity required and reseal the container.

PACKAGING

Altuglas® Adhesive SPC is supplied in full cartons of 12 containers, each holding 1kg. Full cartons cannot be split. Containers are made of aluminium for safety and corrosion resistance. Each individual package is labelled with important information from the Safety Data Sheet and the production batch number.

TECHNICAL DATA SHEET

GUIDELINES FOR USE

Releasing internal strains:

To ensure optimum appearance and a joint that is solid and lasting, the components to be assembled must be free from internal strains caused by various operations (machining, bending, flame polishing, thermoforming or laser cutting). Such strains must therefore be released to avoid cracking (crazing), by annealing the parts in an oven (see Altuglas® Technical Brochure).

Preparation of surfaces:

Surfaces to be glued must be smooth or rubbed down. Sawn or milled edges must be as smooth as possible in appearance, best results being obtained after diamond polishing.

Areas adjacent to the bonding area may be protected with a special adhesive tape (e.g. made of polypropylene) that is resistant to glues. Where necessary, pre-assemble components using the same adhesive tape.

Applying the adhesive:

Altuglas® Adhesive SPC is usually applied from a syringe fitted with a needle, or a small container with a fine tube.

The quantity of glue used must not be excessive, to prevent it squeezing out. Constant pressure must be used at the start of bonding:

- for the first 15 to 20 seconds, with Tuffak® and Altuglas® EX
- for at least 1 minute, with Altuglas® EI.

Application of Altuglas® Adhesive SPC in an area that is too warm reduces the mechanical strength of the joints.

Drying and hardening time:

It is generally possible to handle the bonded parts carefully after a few minutes and it may be possible to carry out other gluing operations.

However, it is preferable to wait 24 hours before they undergo any machining processes.

Bonded parts must not come into contact with solvents or aggressive substances such as alcohol, acids or dilute alkalis.

PROPERTIES OF JOINTS MADE WITH ALTUGLAS® ADHESIVE SPC

Joints made with Altuglas® Adhesive SPC have good mechanical properties when made with extruded Tuffak® polycarbonate and Altuglas® PMMA sheet.

The very high solvent resistance of Altuglas® EI PMMA sheet slightly changes the performance of Altuglas® Adhesive SPC.

Measurement of mechanical resistance to traction carried out after 4 days on test samples of Altuglas® EX and Tuffak® polycarbonate, glued edge-to-edge, gives a value of around 18 Mpa.

This value is given solely as a guide and is not guaranteed.