

## Technical Data Sheet

# ADTECH® 956 TWO PART POLYURETHANE ADHESIVE



**ADTECH® 956 IS A TWO PART POLYURETHANE BASED ADHESIVE WHICH CAN BE USED FOR BONDING A WIDE VARIETY OF SUBSTRATES. IT IS IDEAL FOR BONDING CORNER JOINTS IN ALUMINIUM DOOR AND WINDOW CONSTRUCTION (SUITABLE FOR CLASSIC AND INJECTION BONDING METHODS).**

**ADTECH® 956 IS A STRUCTURAL, FORCE-LOCKING ADHESIVE FOR BONDING THE MOST VARYING MATERIAL COMBINATIONS, E.G. IN THE FIELD OF VEHICLE BODY MANUFACTURE.**

Adtech® 956 can also be used for the bonding of Alu, HPL, GRP and other materials.

### BENEFITS

- UV colour retention
- Tough-hard adhesive joint
- Solvent-free
- Thixotropic, does not drop off
- Good weather-proofness
- Can be over-coated with many paint systems
- Features easy handling of tandem cartridge with static mixer

### AVAILABLE SIZES

Bottle: 900g (600ml)

### TECHNICAL DATA

Density as per EN 542 at +20°C	approx 1.43 g/cm³
Shore hardness as per DIN 53505	approx 80 Shore D
Viscosity at +20°C	Low viscous-pasty
Mixing ratio parts by volume	A:B = 1.0 : 1.0
Pot life at 20°C	approx 30 mins
Processing time at +20°C	approx 15 min
Functional strength at 20°C	approx 3hr
Curing time at +20°C, 50-75% r.H.	approx 24hr
Curing time at +20°C, 50% r.H. until it reaches the final strength	approx 7 days
Applied quantity average	approx. 20g per corner angle
Tensile shear strength as per DIN EN 1465, Alu/Alu, 0.2mm joint at +20°C	approx 20.0 N/mm²
Tensile shear strength as per DIN EN 1465, Alu/Alu, 0.2mm joint at +80°C	approx 8.0 N/mm²

## PREPARATION AND APPLICATION

Acclimatise the product before the application. The surfaces of the workpieces to be bonded must be dry, and free from dust and grease. Depending on the material surface, check if the bonding result can be improved by grinding or applying of primer.

Polyolefins (among others PE, PP) cannot be bonded without preparation, e.g. plasma- or corona treatment. If PS-hard surfaces are bonded, generally we recommend using a primer.

Reactivity and dosing behaviour are considerably influenced by the material temperature; under warm conditions, masses become faster and can be dosed significantly faster. At low temperatures  $< +7^{\circ}\text{C}$ , homogeneously heat the cartridges up to max.  $+35^{\circ}\text{C}$ .

The static mixing tube is screwed onto the open cartridge and the cartridge is inserted in the dosing gun. Avoid overloading of the tandem cartridge due to too high forces  $> 3.6\text{ kN}$ .

Depending on the type or brand of the air pressure gun, and when applying higher operating pressure, the cartridges can be damaged or become leaky due to the different forces caused by the pneumatic cylinders of the guns at usual application temperatures. For this reason, possibly the correct mixing ratios of the adhesive systems cannot be obtained; for instance Sulzer TS493X (Kroger), Schüco 296 704 allow max. 7.0 bar (max. 3.6 kN).

The first approx. 20g of the mixed adhesive (approx. walnut size) are not used for bonding for safety reasons (cartridge filling method)!

Within the processing time, apply the mixed adhesive directly from the static mixer into the profile or onto the surface to be bonded and fit the parts together.

After they have been fit together, the parts must be fixed and pressed until functional strength has been reached.

Hard pointing: the mixed adhesive is applied directly from the static mixer onto the pre-cleaned surface and screeded/smoothed within the processing time.

Remove oozing adhesive when it is fresh. In case of short interruptions of work, within the processing time, if dosed once more, new, fresh adhesive is filled in the

static mixer. In this way, one static mixer can be used for a whole work day. After work stoppages, make sure to change the static mixer within the specified time.

After the end of work, the used static mixer remains on the cartridge unit; if work starts again, the static mixer is to be replaced. If necessary, remove hardened adhesive from the cartridge nozzle. Now the safety shot, approx. 20 g of adhesive, is required, before bonding can be continued!

Bonding of aluminium, copper, brass: only on chemically pretreated or varnished surfaces; these materials cannot be durably bonded to be age-resistant without appropriate pre-treatment of the surfaces to be glued.

Due to the difficult definition of aluminium surfaces and qualities, we generally recommend gathering sufficient information from the supplier to prepare the planned bonding process optimally; sufficient qualification tests are required.

Due to their variety, age and, if necessary, additional treatment with oil or wax, anodized surfaces do not allow any general statement about wettability or bonding characteristics of these bonding surfaces.

If stainless steel is manufactured or processed, auxiliary aids, e.g. wax, oil, etc., are often used, that usually cannot be removed by simple wiping away; it turned out that after the cleaning with solvent-based cleaning agents a clearly better bonding result will be achieved after grinding, or better sand blasting, of the surface and following cleaning with solvent.

Galvanized sheet metals must generally be protected from stagnant humidity that is permanently acting on it "formation of white rust". In this case, it must be excluded that occurring humidity can get onto the bonding surface.

Powder coatings with shares of PTFE cannot be bonded reliably without pre-treatment (e.g. plasma procedure).

## HANDLING AND STORAGE

Store the hermetically closed original trading units in a dry place at temperatures of  $+15^{\circ}\text{C}$  to  $+25^{\circ}\text{C}$  no direct sun radiation. While transported within the usual transport times, the product may not be exposed to temperatures of  $-30^{\circ}\text{C}$  to  $+35^{\circ}\text{C}$ . Storage life in unopened original packagings 12 Months. Remove the fresh, not cured adhesive from the surfaces and the tools. Cured adhesive can only be removed mechanically.

**DISCLAIMER:** Due to the variation in materials likely to be handled by prospective users of this product, together with differences in production techniques and ultimate performance required, it is important that this product is thoroughly evaluated under production and end use conditions before being commercially adopted. Such an evaluation should incorporate an ageing test and this test should be repeated if the substrates on which the this product is used are changed in any way or are purchased from a different source. During the evaluation and testing of the product, it is the purchasers/end user's responsibility to carry out appropriate actions for the protection of the environment, the health and safety of its employees and purchasers of its products. No employee of Ureka Global Ltd has any authority to waive or change the forgoing provisions. The above recommendations are made in good faith for the guidance of users and are without liability. Any queries should be made in writing to the head office of Ureka Global Ltd.

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