

Soudabond 642 Duo

Product description

Soudabond 642 Duo is a 2-component construction adhesive based on polyurethane for bonding corner pieces in aluminum window profiles by post-injection (injection after assembly).

Properties

- Fast curing
- Excellent adhesion on aluminum
- Fast strength build-up
- Very high final strength
- Free of solvents and water
- Foaming penetration action to fill bond cavities
- Does not shrink
- Weatherproof
- Universal applications



Applications

- For bonding angle pieces in extruded aluminium window profiles by means of post-injection (injection after assembly), but pre-injection (injection before assembly) is also possible.
- Bonding of various metals.
- Firm bonding of the most varying material combinations such as wood, metal, plastic, stone, etc.
- Bonding in industrial assembly and constructions, metalworking. Fit for use and the application specific performance requirements shall always be validated first.

Technical data

Base		Polyurethane
Consistency		Paste
Curing system		Chemical curing
Maximum tension	ISO 37	$\geq 20.0 \text{ N/mm}^2$
Component A density		ca. 1.29 g/ml
Component B density		ca. 1.32 g/ml
Mixing ratio by volume		A:B = 1:1
Mixture density		ca. 1.31 g/ml
Potlife		ca. 60 min
Hardness	EN ISO 868	ca. 65 shore D
Can be loaded after		ca. 8h
Consumption		15 - 20 g per corner
Shear strength	EN 1465	After 5h: 2.5 N/mm^2 After 24h: 7 N/mm^2 (AlMgSi 6082 - AlMgSi 6082)
Application temperature		+5°C → +35°C
Temperature resistance		-30°C → +100°C

Soudabond 642 Duo

Maximum force window corner

13 kN at 23°C | 8 kN at 80°C

Footnote: evaporation time, open time and curing speed may vary depending on environmental factors such as temperature, moisture, and type of substrates.

Substrates

- **Substrate condition**
The surface must be rigid, clean, dry, free of dust and grease.
- **Substrate preparation**
No pretreatment required. A preliminary adhesion test on every substrate is recommended.
- **Substrate types**
Soudabond 642 Duo has a good adhesion to following substrates: all metals, aluminium, wood, stone, PVC. Soudabond 642 Duo has no good adhesion or is not suitable for glass, PE, PP, PA, EPDM, PTFE (Teflon®).

Application method

- **Application method**
First remove the screw cap and then the red valve. Place the tandem cartridge in a suitable hand or pneumatic 2K caulk gun and extrude the product, without static mixer, until both components come out of the cartridge (=leveling the pistons). Assemble thereafter the included static mixer on the tandem cartridge. This way an optimal mixing ratio is obtained much faster. Check the homogeneous mixing of the product when extruding (= the color stated on the cartridge). When using the pneumatic 2K caulk gun (Soudal PPA 300B, CSG II MP BCX/600), set the pressure to max. 7 bar (2.7 kN). Apply Soudabond 642 Duo, after assembly of the aluminium window frame, by means of post injection in the respective openings. The included static mixer can be cut to the desired diameter (= less pressure build-up) depending on the application. Soudabond 642 Duo can also be applied by pre-injection (injection before assembly). For other (metal-)bondings, apply Soudabond 642 Duo on one of the substrates to be bonded. Merge the materials within the processing time and clamp for at least 4 hours. Clamping the materials together, during curing, is required in order to achieve the highest possible final strength.
- **Cleaning method**
Uncured Soudabond 642 Duo can be removed from substrates and tools with Soudal Gun and Foam Cleaner. Cured product can only be removed mechanically.
- **Repair method**
Repair with the same material.

Health- and Safety Recommendations

Take the usual labour hygiene into account. Consult the packaging label and safety data sheet for more information.
Always wear gloves and goggles.

Packaging/Logistics

Colour: Black, Beige

Packaging: 2 x 300 ml Side-by-Side cartridge

Shelf life: 15 months in unopened packaging in a cool and dry storage place at temperatures between +5°C and +25°C

Standards and certificates

- IFT-report 16-002204-PR01: Determination of the tensile strength of a bonded window angle corner.

Environmental clauses

- **Leed regulation:** Soudabond 642 Duo conforms to the requirements of LEED. Low -Emitting Materials: Adhesives and Sealants. SCAQMD rule 1168. Complies with USGBC LEED 2009 Credit 4.1: Low-Emitting Materials – Adhesives & Sealants concerning the VOC-content.

Soudabond 642 Duo

This technical data sheet replaces all previous versions. The directives contained in this documentation are the result of our experiments and of our experience and have been submitted in good faith. It is general in nature and does not constitute any liability. Because of the diversity of the materials and substrates and the great number of possible applications which are out of our control, we cannot accept any responsibility for the results obtained. Since the design, the quality of the substrate and processing conditions are beyond our control, no liability under this publication is accepted. It is the responsibility of the user to determine by his own tests whether the product is suitable for the application. In every case it is recommended to carry out preliminary experiments. The manufacturer reserves the right to modify products without prior notice.