0364
2–Part Adhesive

TDS
Technical Data Sheet
Version 01.01.01
Updated 05.12.24

Product Certificates / Test reports

ift Rosenheim
Examination of tensile strength of bonded frame corners of aluminium composite sections at different temperatures after diverse storage conditions.
Test report No.: 50924109/1
French VOC-Emission class A+

Special Properties

- tough-hard adhesive joint
- Solvent-free
- Thixotropic, does not drop off
- Good weather-proofness
- Can be over-coated with many paint systems
- Can subsequently be powder-coated (30 min/+230 °C)
- If wood is glued, it achieves the durability class D4 as per DIN EN 204.
- Features easy handling of tandem cartridge with static mixer

Product Applications

- **In the field of aluminium window and door construction, for bonding corner joints (suitable for classic and injection bonding methods)**
- **Structural, force-locking bonding of the most varying material combinations, e.g. in the field of vehicle body manufacture**
- **For bonding of Alu, HPL, GRP and other materials**
- **Joint restoration of gypsum fibre boards**

Technical Data

Mixture	OBEX CORTEX 0364 2-Part Adhesive (Component 1 + Comonent 2)	
Basis		2-Component PUR reaction adhesive
Colour	hard-dry	beige
Density	as per EN 542 at +20 °C	approx. 1.52 g/cm^3
Shore hardness	as per DIN 53505	approx. 85 Shore D
Viscosity	at +20 °C	low viscous-pasty
Mixing ratio	parts by volume	A: B = 1.0 : 1.0
Pot life	of a 100 g batch at +20 °C	approx. 60 min
Processing time	of the tandem cartridge with the static mixer at +20 °C	approx. 30 min
Functional strength	e.g. corner angle bonding at +20 °C	approx. 6 h
Curing time	at +20 °C, 50 % r. H. to approx. 75 %	approx. 24 h
Curing time	at +20 °C, 50 % r. H. until it reaches the final strength	approx. 7 d
Processing temperatures	adhesive and substrates	from +7 °C until +30 °C
Applied quantity	average	approx. 20 g per corner angle

Technical Data

Tensile shear strength	as per DIN EN 1465, Alu/Alu, 0.2 mm joint at +20 °C	approx. 18.0 N/mm²
Tensile shear strength	as per DIN EN 1465, Alu/Alu, 0.2 mm joint at +80 °C	approx. 9.0 N/mm²

Component A	OBEX CORTEX 0364 2-Part Adhesive Component 1	
Colour		beige-white
Viscosity		low viscous-pasty

Component B	OBEX CORTEX 0364 2-Part Adhesive Component 2	
Colour		beige
Viscosity	at +20 °C	low viscous-pasty

General Information

The processing times become shorter at +30 °C to approximately half of the time, at +10 °C, they become longer to approx. double of the time.

If permanent humidity impact is expected, the bonded joints/bonded surfaces must additionally be sealed/ protected using a “suitable sealant”.

Bonding of materials with different longitudinal extension must be assessed regarding their long-term behaviour, especially when they are exposed to fluctuating temperature ranges.

The cured mass changes its colour due to UV radiation but not its strength in the cured bonded joint.

Pot-life, processing time, as well as the necessary pressing time or fixing time, can only be determined accurately by self-tests because they are strongly influenced by material characteristics, temperature, mixed quantity, applied quantity, and other criterions. For processing, appropriate safety allowances shall be planned in addition to the specified guiding values.

Preparation

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.

For corrosion protection and for sealing of e.g. mitres and butt joints in the field of aluminium construction, corrosion-protective sealant or the colour variants are applied on the blank aluminium cut surfaces before the connecting elements are bonded.

Bonding

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 °C, **homogeneously** heat the cartridges **up to max. +35 °C**.

The static mixing tube is screwed onto the open cartridge and the cartridge is inserted in the dosing gun.

At an operating pressure of max. 8.0 bar, the air pressure guns OBEX CORTEX 0364 2-Part Adhesive, will achieve a working power of 3.3 kN.

Avoid overloading of the tandem cartridge doe to too high forces >3.6 kN. If the air pressure guns type SP-750.111 or SP-750.121 and a connected pressure of 8.6 bar are used, max. 2.8 kN can be reached, i.e. safety is ensured.

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 (Krøger), Schü co 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.

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!

The adhesive can be coloured by adding of paste paints OBEX CORTEX 0364 2-Part Adhesive, usually up to 1 %, however not more than 3 %.

Paste paints OBEX CORTEX 0364 2-Part Adhesive are added directly after dosing of the two components from the tandem cartridge, then they are mixed to be homogeneous with the adhesive.

Bonding of metals

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).

Bonding of wood

If solid wood is bonded, the adhesive should preferably be applied on the two surfaces to be bonded. The press pressure shall be >1 N/mm^2.

If solid wood is bonded for outdoor application, perform appropriate tests to achieve optimum bonding depending on wood type, weathering intensity, surface protection and dimensions of adhesive joints.

Important instructions

Only instructed personnel in specialist firms are allowed to use the product!

Our user instructions, processing guidelines, product- and performance data, and other technical statements are only general directives; they describe only the condition of our products (values, determination of values on the date of completion) and the performances do not represent a warranty in the sense of § 443 BGB.
Because of the wide variety of applications of the individual product and the relevant special conditions (e. g. processing parameters, material characteristics, etc.), it is up to the user to test it itself; our free expert advice for application provided in speech, writing, and as test is nonbinding.

Please, also consider the Safety Data Sheet!

Cleaning

Remove the fresh, not cured adhesive from the surfaces and the tools.

Cured adhesive can only be removed mechanically.

Storage

Store the hermetically closed original trading units in a dry place at temperatures of +15 °C to +25 °C no direct sun radiation.

While transported within the usual transport times, the product may not be exposed to temperatures of -30 °C to +35 °C. Storage life in unopened original packagings 15 Months.