

Technical Data Sheet



technicoll® 8301/8302 2-component PUR adhesive, solvent-free

Field of application

Paste-like, gap-filling 2-component-PUR adhesive for of many plastics, especially in combination with other materials like metals, derived timber products and concrete. Suitable for production of composite panels made of a core of rigid foam with all different types of coating.

Handling data and product data

Mixing ratio	technicoll® 8301	technicoll® 8302
by weight	100	15
Density	1.9 g/cm ³	1.2 g/cm ³
Viscosity (+25 °C)	approx. 260000 mPas	approx. 200 mPas
Colour	pearly white	dark brown
Pot life (+20 °C)	1 kg mixture 7 kg mixture	90 minutes 60 minutes
Minimum curing time	approx. 10 hours	
Colour reaction product	traffic white, not lightproof	
Density reaction product	1.9 g/cm ³	
Shore hardness D	approx. 70	
Solid content	100 %	
Processing temperature	+15 °C to +25 °C	
Consumption	350 - 1000 g/m ² (depending on joint thickness)	
Way of application	one-sided	
Diluent	not possible	
Cleaning agent / material	technicoll® 8363 technicoll® 9901 (metal cleaning spray) technicoll® 9902 (plastics cleaning spray)	
Cleaning agent / tool	technicoll® 8362, technicoll® 9901 (spray)	
Cleaning	Cured adhesive can only be removed mechanically.	
Maximum time of storage	At least 2 years (technicoll® 8301) and 1 year (technicoll® 8302) when stored in sealed original packaging in cool and dry places.	
Preferred storage temperature	+10 °C to +25 °C	
Behaviour at low temperature	technicoll® 8301 is not susceptible to frost. Densification at low temperature. Once adjusted to processing temperature: fully employable. technicoll® 8302 is <u>frost susceptible</u> (permanent damage!)	

Favoured substrates

- thermosets like:
 - GRP, CRP (UP, EP), SMC, HPL, DKS
- thermoplastic plastics like:
 - ABS, PVC-u, PA, PC, PMMA
- polystyrene-rigid foam (XPS) Styrodur®
- concrete, stone, ceramics
- metals (aluminium, steel)
- primed, coated surfaces
- derived timber products (also oil containing timber)
- rubber

Not suitable for: PE, PP, PTFE (Teflon®), POM, silicone, EPDM, PVC-p (faux leather)

Due to the large variety of possible materials and differences in adhesion behaviour hazard tests are mandatory before introducing the adhesive into the actual production process.

Surface preparation

Bonding surfaces must be dry and clean, especially free of oil, grease or solvents. In many cases, surface roughening prior to bonding improves strength of bonded joint. This is especially recommended when bonding elastomers. When working with thermoplastics, check if it is necessary. On blank metals the curing strength is limited when the gap is subjected to high temperatures (> +70 °C) or permanently in contact with water.

Adhesion

The adhesive is generally applied to one side (toothed trowel, roller). technicoll® 8301/8302 can also be applied with 2-component mixture/dosing installations. Apply the adhesive until the gap is fully filled. Gaps of 1 mm or more can be filled. Mix technicoll® 8301/8302 prior to the immediate application at a ratio of 100:15 weight portion. The joint components should be assembled and clamped within the pot time.

Curing

Adhesive cures within about 8 hours at +20 °C to such a degree that allows further processing of the parts. Curing can be accelerated by heat. Temperatures of more than +60 °C are not recommended. Do not heat up the material to more than +30 °C when materials having absorbent surfaces are to be bonded. The solid adhesive film is hard and tough and flexible. Wait for a couple of days before assessing the final strength.

Lap shear strengths (DIN 53283 at +20 °C after curing 7 d/+20 °C)

Aluminium/aluminium	8 - 10 N/mm ²
Steel/steel	8 - 9 N/mm ²
GF-UP/GF-UP	9 - 10 N/mm ²

Technical status: 22.12.2015

page 2/2

Deviating information of earlier versions is invalid.

Special notice:

All information given on this data sheet is based on our knowledge and experience at the time of printing. The information is not binding. We advise to determine the suitability of our products with respect to their intended use and method of application. Therefore, a warranty claim cannot be granted.