

# KLEIBERIT 506.6

## Humidity curing single component adhesive based on polyurethane

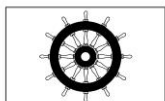
### Fields of application

- Bonding of wood and wood based materials
- Bonding of compounds with core materials: hard foams based on polystyrene, polyurethane, phenol resin and PVC, boards made from mineral and glass fibres as well as honey comb cores, with cover materials: laminate boards, pre-treated sheet aluminium (primered), plaster cardboard and plaster fibre boards, OSB boards, various fibre boards and cement-bonded chipboards.

When bonding metals or plastics, the bonding properties must be tested beforehand, due to the great variations in the materials which are available.

- Bonding in shipbuilding (according to IMO FTP Code Part 5 & Part 2/ approval according to BG Verkehr (ship safety division) for international use according to **Module B**)  
Approval number: 118269-02 (XX = production year)

Certified application quantity:  
150 g/m<sup>2</sup>



### Advantages

- Single-component adhesive, no pot life problems

### Properties of the bond

- High bond strength
- Good resistance to humidity and temperature

## Properties of the adhesive

<b>Base:</b>	Humidity curing, 1 C polyurethane
<b>Colour:</b>	amber
<b>Specific gravity:</b>	1.14 ± 0.02 g/cm <sup>3</sup>
<b>Viscosity at 20°C</b>	
<b>Brookfield RVT sp. 4/20 rpm:</b>	4,000 ± 1,000 mPa s
<b>Consistency:</b>	low viscosity
<b>Open time:</b>	55 ± 15 minutes
<b>Identification:</b>	see our Safety Data Sheet

## Application methods

- Closed nozzle application
- Swirl-spray
- Roller

## Application techniques

The surfaces to be bonded must be clean, free from grease and air-dry. Remove release agent from plastic surfaces. Roughen and remove dust from sheet metals and hard plastics. Pre-treat aluminium foils and prime metals, if necessary.

### Adhesive application and open time

Single-sided application to the part with the less porous surface is sufficient. Processing time or open time is about 55 minutes at 20 °C and 50 % relative humidity of air. High room temperature, high humidity of the air or moisture supply (atomising of water) reduces the open time down to approx. 30 minutes.

**Application quantity:** 100-200 g/m<sup>2</sup>

For bonding in shipbuilding, please observe that the certified application quantity of 150 g/m<sup>2</sup> is complied with.

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## Curing:

Under the influence of humidity (air, material, atomising of water), the adhesive cures to a water resistant, solvent resistant, semi-rigid, somewhat foamed adhesive film. By means of deliberate moisture supply (atomising of water, approx. 20 g/m<sup>2</sup>) or by higher temperatures (50°C up to max. 70°C) the cross linking process can be accelerated.

## Pressing of the parts:

The cross linking process takes place when sufficient pressure is applied guaranteeing contact with the adherent. The required pressure depends on the type and size of the materials; a tight fit should be achieved.

## Press times:

The press times depend on temperature and moisture supply.

In the following table are some guiding values for the bonding of wood based materials (wood moisture 6-15%):

Temperature	humidified	not humidified
20 °C	90 minutes	120 minutes
30 °C	45 minutes	60 minutes
40 °C	20 minutes	30 minutes

Exact times must be established for each application according to the conditions in question.

## Final setting time:

The before mentioned press times are minimum values, the final strength is achieved after some days.

## Safety measures:

Harmful when inhaled. Irritating to eyes, respiratory system and skin. May cause sensitisation by inhalation and skin contact. In case of contact with eyes, rinse with plenty of water immediately and seek for medical advice. After contact with skin, wash immediately with plenty of water and soap.

If you feel unwell, seek medical advice.

Heating above 40°C can cause harmful vapours, therefore pay attention to effective ventilation or wear respiratory equipment in rooms, which are not sufficiently ventilated. The adhesive reacts chemically with water, therefore contact with eyes; mouth or mucous membranes should be avoided by all means.

## Cleaning

Clean application tools with KLEIBERIT Cleaner 820.0 toluene-free immediately after use.

## Packaging

### KLEIBERIT 506.6

plastic canister, 6 kg net  
metal can, 30 kg net  
container, 1,000

### KLEIBERIT Cleaner 820.0 toluene-free:

metal canister, 4.5 kg net  
metal bottles at 800 g net each  
metal can, 22 kg net

Additional packaging sizes available upon request.

## Storage

KLEIBERIT 506.6 can be stored in air-tight containers at 20°C for at least 9 months. Keep in a cool and dry place and protect carefully from humidity. Opened containers should be used up within a short period of time.

Version 02/03/2023 al; replaces previous versions

### Waste Disposal

Disposal of contents and/or containers should comply with all applicable federal, state and local regulations.  
Our containers are made of recyclable material.

### Service

Our application department may be consulted at any time without obligation. The statements made herein are based on our experience gained to date. They are to be considered as information without obligation. Please test and establish for yourself the suitability of our products for your particular purposes. No liability exceeding the value of our product can be derived from the foregoing statements. This also applies to the technical consultancy service which is rendered free of charge and without obligation.