

# PLUS ENDFEST

## UNIVERSAL STRONG DUAL-COMPONENT EPOXY ADHESIVE

# UHU



### PRODUCT DESCRIPTION

Universal strong dual-component epoxy adhesive.

### FIELD OF APPLICATION

Ideal for repairs to metal, ceramics, porcelain, crystal, glass, ivory, pearls, precious stones and various synthetics (polyester, bakelite, formica, rigid polystyrene and acrylic glass (Perspex®)). Not suitable for Polyethylene (PE), polypropylene (PP), PTFE and silicone rubber.

### PROPERTIES

- Super-strong
- Resistant to temperatures between -30°C and +80°C
- Filling
- Water resistant
- Chemical resistant
- Paintable

### PREPARATION

**Working conditions:** Only apply at temperatures between +5°C and +35°C.

Product cures by mixing the resin and hardener.

**Personal safety:** Preferably wear gloves.

**Surface requirements:** The materials to be bonded must be dry, clean, free of dust and grease.

**Preliminary surface treatment:** Degrease parts to be bonded with acetone. Roughen smooth surfaces (sandpaper).

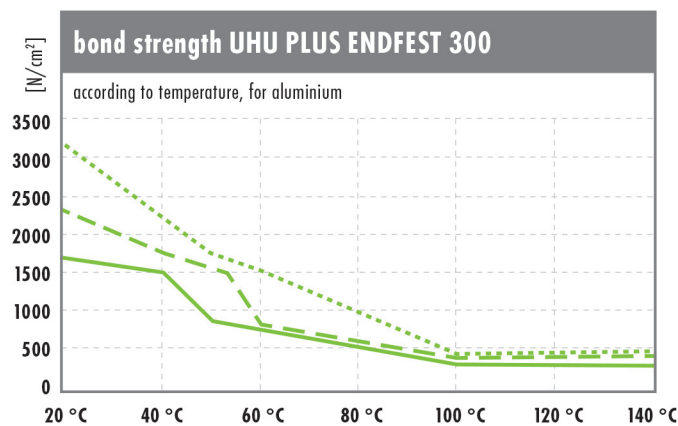
**Tools:** Mix the components by means of the supplied mixing bowl and spatula.

### APPLICATION

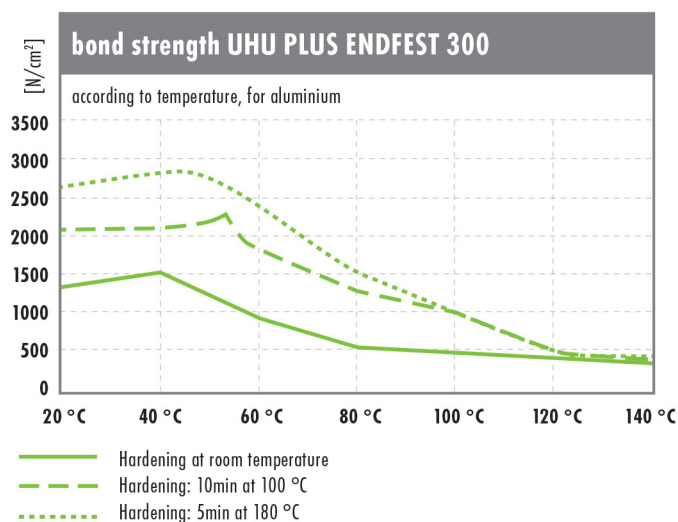
**Mixture ratio:** (by volume) 1:1 (other mixing ratios possible)

**Coverage:** 1 ml = approx 1 cm<sup>2</sup> at a film thickness of 1 mm

mixing ratio 1:1 (binder and hardener by volume)  
 ≙ mixing ratio 100:80 (by weight)



mixing ratio 100:50 (by weight)



### Directions for use:

Press out an equal amount of both components onto the enclosed mixing tray. Mix these two equal parts well with a synthetic spatula until a mixture is obtained with a homogeneous colour. Apply the mixture, which at room temperature (+20°C) remains toolable for about 1.5 hours, as a thin layer on one of the two materials. Join the materials and keep them in place for 7 hours. Be careful not to move the parts before the adhesive has cured. Resin and hardener must not come into contact with each other unless for usage.

**Open time:** 90 mins. (Period of usability at 20°C room temperature)

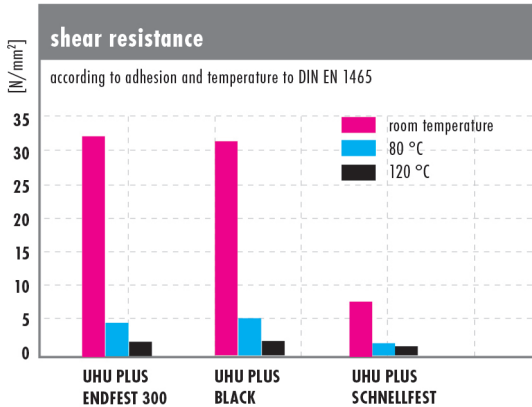
**Stains/residue:** Remove wet stains immediately with warm water and soap. Cured adhesive residue can only be removed mechanically.

**Advice:** Some types of synthetics can not be joined such as polyethylene and polypropylene. This can be tested by holding a glowing copper wire against the synthetics. Does it smell of wax? Then you can not bond it.

Use a piece of adhesive tape in order to keep the parts in place while the adhesive is curing.

**Points of attention:** Close well after use. For optimum performance it is important to create a larger amount of adhesive and mix it very well. Curing

time depends on the temperature. Adhesive does not cure below +5°C.



**Chemical base:** binder: epoxy resin; hardener: aliphatic amines

**Bonding technique:** Wet adhesion

**Viscosity:** B: 40.000; H: 30.000 mPa.s

**Solid contents:** approx. 100 %

**Density:** approx. binder: approx. 1,2; hardener approx. 0,96 g/cm<sup>3</sup>

## STORAGE CONDITIONS

Store cool, dry, frost-free and tightly closed.

## CURE TIMES

**Dry/Cure time:** approx. See chart:

**Adhesion of UHU PLUS ENDFEST 300**  
according to temperature, for aluminium

temperature	hardening time	bond strength
40 °C	3h	ca. 18N/mm <sup>2</sup>
70 °C	45min	ca. 20N/mm <sup>2</sup>
100 °C	10min	ca. 25N/mm <sup>2</sup>
180 °C	5min	ca. 30N/mm <sup>2</sup>

\* Curing time may vary depending on a.o. surface, product quantity used, humidity level and ambient temperature.

## TECHNICAL PROPERTIES

**Temperature resistance:** Between -40 and +100°C (dependent on material and construction; higher temperatures may also be possible - see chart).

Temperatures should not exceed 200°C either during hardening or when the assembly is subsequently put under pressure, as this would affect firmness and the stability of the substance. UHU PLUS ENDFEST 300 is resistant to ageing and weathering. The adhesive is not affected by even extremely low temperatures. At temperatures below -60°C, resistance to combined tension and shearing is reduced to approximately 75-80% of the value measured at room temperature; if the samples are heated up to room temperature once more, the original bond strength is also regained.

**Chemicals resistance:** many solvents, oil, dilute acids, alkalis and many solvents. Moisture, dilute acids and alkalis have very little effect on bond strength, even in the event of lengthy exposure. No universally valid data can be given as there are always many factors, such as the possibility of corrosion, duration of exposure and temperature, that affect the assembly. Some solvents, such as methylene chloride and trichloroethylene (Warning! Precautions must always be taken when using these substances!), soften the adhesive over a period of time. This effect can be made use of for dissolving adhesive joints.

## TECHNICAL SPECIFICATIONS

Appearance: binder: opaque; hardener: honey coloured

Note: This information is the result of carefully executed tests. This Technical Data Sheet has been prepared to the best of our knowledge to provide you with advice when gluing. We cannot be held responsible for the results or any damage suffered, as the variety of factors involved (type and combination of materials and working method) are beyond our control. Users have to carry out their own checks and trials. Liability can only be accepted for the consistently high quality of our product.