

# NEUKADUR PN 444 + PN 641

2-C-Polyurethane Adhesive

# altropol

## Main features

- solvent-free
- good filling properties
- good adhesion to different substrates

## Applications

- metal
- wood
- tooling boards
- PU rigid foam

## Properties of non-crosslinked state (approx. values)

		NEUKADUR PN 444 Comp. A	NEUKADUR PN 444 Comp. B	NEUKADUR PN 641 Comp. A	NEUKADUR PN 641 Comp. B
Colour		beige	brown	beige	brown
Mixing ratio	p.b.w.	100	17	100	17
Density (20 °C)	g/cm <sup>3</sup>	1.7	1.2	1.7	1.2
Viscosity (25 °C)	mPas	pasty	250	pasty	250

## Properties of the mixture (approx. value)

			Mixture NEUKADUR PN 444	Mixture NEUKADUR PN 641
Mixing density	g/cm <sup>3</sup>		1.6	1.6
Pot life	(1000 g) min.		30 - 40	7
Setting time	hours		24	16
Hardness	Shore D	DIN 53505	60	60
Dimensional stability under heat	°C	HDT	45	45

## Preparation of the adherent surface

The parts to be connected shall be dry and free from dust and grease. Metals are to be provided with a suitable primary coat, particularly when you have to reckon with the influence of humidity on the bonded connection later on. The surfaces of plastic boards have to be cleaned so that they are free from release agent.

You can improve the adhesion by roughening the surfaces. Further suitable pretreatments are coating with primers and washing with solvents (isopropanol, ethanol and acetone). Polystyrene parts cannot be glued together with NEUKADUR PN 444 and/or NEUKADUR PN 641 without having been pretreated.

## How to process the material

Just before starting processing, mix resin and hardener with each other in the indicated mixing ratio until the compounds has got a homogeneous appearance. The adhesive can processed for a limited period of time only (pot life). After it, the mixture gels and become unusable for gluing processes. Therefore we recommend preparing only the quantity of material that can be processed within the indicated pot life.

The pot life is dependent on the quantity and temperature of the formulation. In case of more important quantities or elevated temperatures, the pot life becomes shorter. Lower temperatures, however, prolong the pot life. When the quantity of hardener is overdosed, the adhesive film will become more brittle and the viscosity of the compound lower.

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NEUKADUR PN 444 and/or NEUKADUR PN 641 can be applied by hand with a spatula or by machine (two component processing plants). The application of the adhesive is made on one side only.

Take care that the adhesive components do not get into contact with humidity before and during the processing as it will react with the Isocyanats during the curing process which will then lead to the formation of bubbles and/or foam. Therefore, always keep receptacles tightly closed and protected from humidity.

During the setting time, do take care of an efficient contact pressure (stacking pressure, squeezing, clamping) to ensure that the parts to be glued are kept in full contact with the adhesives.

## **Curing**

NEUKADUR PN 444 and/or NEUKADUR PN 641 can be cured in a cold (at room temperature above 15 °C) or warm condition. The curing after time is shortened considerably by increase of temperatures or by addition of accelerators. The final strength of the gluing is obtained after some days.

## **Cleaning**

Fresh, uncured material on processing tools or substrates can be removed with the purifier NEUKADUR PUR 2; cured adhesive can only be removed mechanically.

## **Form of delivery**

NEUKADUR PN 444 Comp. A	1.00 kg	5.00 kg	25.00 kg	
NEUKADUR PN 444 Comp. B	0.17 kg	0.85 kg	4.25 kg	
NEUKADUR PN 641 Comp. A	0.50 kg	1.00 kg	5.00 kg	10.00 kg
NEUKADUR PN 641 Comp. B	0.10 kg	0.17 kg	0.85 kg	1.70 kg

## **Storage**

We recommend keeping the material in tightly closed original receptacles at temperatures of 20 – 25 °C. When duty stored, the material can be used within the shelf life indicated on the label (the first 2 digits of the batch number indicate the week, the 3<sup>rd</sup> digit indicates the year).

## **Measure of precaution**

With the aid of the current safety data sheets, which contain physical, ecological, toxicological and other data relating to safety, the user can inform himself on the safe handling and storage of the products.

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Our technical service - in words, in writing or by trials - is given according to the current state of our knowledge. It does however not relieve the customer/user from the duty to check by himself if the products supplied by us are suitable for the intended processes and purposes. Application, use and processing of the products take place beyond our control possibilities and lie therefore exclusively in the area of responsibility of the processor. Any existing property rights of third parties are to be considered. We guarantee the perfect quality of our products in accordance with our general terms and conditions of business. When handling our products you have to observe the legal rules and the rules for the industrial hygiene. As for the rest, we refer to the corresponding safety data sheets.

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