

# NEUKADUR PN 1879

2-C Polyurethane Casting Resin, mineral-filled

Fire protection according to UL 94V-0

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## Main features

- low casting viscosity
- good heat removal
- low shrinkage during the curing process
- no tendency to embrittlement
- good properties with regard to corrosion protection
- excellent resistance to hydrolysis
- high adhesion to metal, ceramics and many plastic materials
- recommended temperature range from - 40 °C to + 145 °C
- temporary higher stress possible up to + 150 °C

## Applications

- casting of electric component parts

**Properties in the non-crosslinked state (approx. values). For mechanics/electricity, see point "Tempering" below.**

		NEUKADUR PN 1879 Comp. A	NEUKADUR PN 1879 Comp. B
Colour		black	brown
Mixing ratio	p.b.w.	100	43
Density (20 °C)	g/cm <sup>3</sup>	1.55	1.20
Viscosity (20 °C)	mPa·s	8,000	40

## Properties of the mixture at 20 °C (approx. values)

Mixed viscosity	mPa·s		600
Density	g/cm <sup>3</sup>	DIN 53479	1.4
Pot life	minutes		30
Hardness (7 d RT)	Shore D	DIN 53505	85
Tensile strength	N/mm <sup>2</sup>	DIN 53455	54
Elongation at tear	%	ISO 527-2	2
Modulus in tension	N/mm <sup>2</sup>	ISO 527-2	5,500
Thermal conductivity	W/K·m	DIN 52612	0.55
Glass transition temperature	TG °C	DIN 51005	85
Coefficient of expansion < 70°C	ppm/K	TMA	54
Coefficient of expansion >100 °C	ppm/K	TMA	151
Class of insulation		IEC 60085	B
Water absorption	%	after 30 days of plunge	0.3
Behaviour in fire	mm	UL 94	V - 0.6
Heat filament test 6mm	°C	IEC 60695-2-12/-13 GWFI/GWIT	960/825
Dielectric strength	kV/mm	IEC 602431-1 VDE 0303 TI.2	34
Volume resistivity 23 °C / 50 % r.F.	Ω·cm	IEC 60243-1 VDE 0303 TI.2	7·10 <sup>14</sup>
Dissipation factor 23 °C 50 Hz 1 kHz 1 MHz	tan δ	IEC 60250 VDE 0303 TI.4	0.010 0.009 0.013

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Surface resistivity 23 °C / 50 % r.F.	Ω	IEC 60093 VDE 0303 TI 30	3·10 <sup>17</sup>
Dielectric constant 23 °C 50 HZ 1 kHz 1 MHz	ε	IEC 60250 VDE 0303 TI.4	3.7
			3.6
			3.5
Thermal conductivity	W/m•K	ISO 22007-2:2008	0.55
Creep resistance	CTI	IEC 60112 VDE 0303, TI.1	600

\* RT = room temperature

### Tempering

The good mechanical and electrical properties (see table above) of the NEUKADUR PN 1879 are obtained after 24 hours of storage at room temperature and the following post-tempering: 8 hours at 80 °C and then once again 8 hours at 120 °C.

### How to process the material

Stir up resin component thoroughly.

Mix resin and hardener thoroughly by slow stirring in the indicated mixing ratio (depending on batch size and pot life). After that, proceed to casting immediately. Before the end of the pot life, remove air bubbles that might have been included during the stirring process by evacuation or careful fanning of the surface with a hot-air hair dryer.

For release agents, please visit our homepage under <http://www.altropol.de/en/produkte/weitere-produkte/trennmittel>

### Form of delivery

NEUKADUR PN 1879 Comp. A	0.5 kg	5 kg	25 kg
NEUKADUR PN 1879 Comp. B	0.215 kg	2.15 kg	10.75 kg

### Storage

We recommend keeping the material in tightly closed original receptacles at temperatures of 20 - 25 °C. When duly stored, the material can be used within the shelf life indicated on the labels (the first 2 digits of the batch number indicate the week, the 3rd 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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• [www.altropol.de](http://www.altropol.de) •

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