

# NEUKADUR ProtoCast 120

## 2-C PUR Vacuum Casting System

### PA / ABS

# altropol

#### Main features

- properties similar to those of PA / ABS
- low-viscous
- high dimensional stability under heat
- very high impact strength
- very fast curing
- NEUKADUR ProtoCast 120 VZ pot life prolonger

#### Applications

- prototyping
- small-lot production
- production of technical parts

#### Properties in the non-crosslinked state (approx. values)

		NEUKADUR ProtoCast 120 Comp. A	NEUKADUR ProtoCast 120 Comp. B 1	NEUKADUR ProtoCast 120 Comp. B 2
Colour		milky yellow or black	transparent colourless	transparent colourless
Mixing ratio	p.b.w.	65	100	100
Density 20°C	g/cm <sup>3</sup>	1.00	1.20	1.20
Viscosity 25°C	mPa·s	500	1,800	800

#### Properties of the mixture (approx. values)

Mixed viscosity 25°C	mPa·s		1,100	850
Pot life (25 °C)	minutes		7	6
Pot life (40 °C)	minutes		4	3
Demouldable 70°C	minutes		60	60
Hardness	Shore D	DIN 53505	82	82
Colour			beige / black	beige / black
Recommended layer thickness	mm		5	5

#### Properties of the cured product after 1 h 80°C/ 1 h 100°C/ 2 h 110°C (approx. values)

Tensile strength	MPa	DIN 53455	55	67
Tensile elongation	%	DIN 53455	6	8
Flexural strength	MPa	DIN 53452	100	110
Bending elongation	%	DIN 53452	10	11
Modulus in flexure	MPa	DIN 53457	1,700	2,000
Impact strength	KJ/m <sup>2</sup>	DIN 51230	70	50
Dimensional stability under heat	°C	HDT	110	130
Linear dimensional change (1 h 80 °C + 1 h 100 °C)	%	500 x 50 x 3 mm	0.4	0.3

#### How to process the material

Before use, homogenize NEUKADUR ProtoCast 120 thoroughly. Preheat casting mould / tool to 70°C, Comp. A/Comp. B to approx. 40°C. It is also possible to heat up Comp. A only to 40°C, then the 40°C pot life extends by approx. 1 - 2 minutes.

Degas Component A under full vacuum for approx. 15 to 20 minutes, then mix both components intensively with each other according to the mixing ratio. For casting, reduce the vacuum to approx. 100 mbar. The indicated mechanical values are only obtained after the above described tempering.

With NEUKADUR ProtoCast 120 VZ, we make available a product being reduced in reaction and intended for the extension of the pot life. NEUKADUR ProtoCast 120 VZ can however also be processed alone with NEUKADUR ProtoCast 120 Comp. B 1 or NEUKADUR ProtoCast Comp. B 2. This comes into effect when it deals with big parts or difficult contours. The pot life of NEUKADUR ProtoCast 120 VZ with for example NEUKADUR ProtoCast 120 Comp. B 1 is at 25 °C approx. 9 minutes. The tempering already described above can be maintained. NEUKADUR ProtoCast 120 VZ can be mixed in any ratio desired with NEUKADUR ProtoCast 120 Comp. A. The mixing ratio of NEUKADUR ProtoCast 120 VZ with NEUKADUR ProtoCast 120 B 1 or B 2 is also 65 : 100.

A dimensional stability of 110 to 130 °C is obtained by the following step-by-step tempering:

- 1 h at 80 °C
- 1 h at 100 °C
- 2 h at 110 °C

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

**Form of delivery**

NEUKADUR ProtoCast 120 Comp. A	0.65 kg	1.95 kg	10 kg	25 kg
NEUKADUR ProtoCast VZ	0.65 kg	1.95 kg		
NEUKADUR ProtoCast 120 Comp. B 1	1 kg	3 kg	6 kg	
NEUKADUR ProtoCast 120 Comp. B 2	1 kg	3 kg	6 kg	25 kg

**Storage**

The material should be kept 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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