

# NEUKADUR ProtoCast 110

2-C PUR Vacuum Casting System

PP / HDPE

# altropol

## Main features

- Properties similar to those of PP / HDPE
- low-viscous
- good dimensional stability under heat
- very impact resistant

## Applications

- prototyping
- production of parts
- universally for all kinds of moulds and patterns

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

		NEUKADUR ProtoCast 110	NEUKADUR Hardener PTG 1	NEUKADUR Hardener PTG 4
Colour		milky white	yellowish	brownish
Mixing ratio	p.b.w.	100	100	85
Density 20 °C	g/cm <sup>3</sup>	1.00	1.20	1.20
Viscosity 25 °C	mPa·s	1,200	120	150

## Properties of the mixture (approx. values)

			NEUKADUR ProtoCast 110/ Hardener PTG 1	NEUKADUR ProtoCast 110 Hardener PTG 4
Mixed viscosity (25 °C)	mPa·s		500	600
Pot life (25°C)	minutes		4	4
Demouldable after (80 °C)	minutes		75	75
Hardness	Shore D	DIN 53505	77	80
Colour			light beige	beige
Recommended layer thickness	mm		5	5

## Mechanical values (approx. values after 2 h 70 °C, for Hardener PTG 4 additionally + 4 h 80 °C)

Tensile strength	MPa	DIN 53455	42	48
Tensile elongation	%	DIN 53455	18	16
Flexural strength	MPa	DIN 53452	70	65
Bending elongation	%	DIN 53452	15	12
Modulus in flexure	MPa	DIN 53457	1,200	1,400
Dimensional stability under heat	°C	HDT	75	85
Impact strength after 2 h 80 °C	KJ/m <sup>2</sup>	DIN 51230	>55	>50
Linear dimensional change	%	500 x 50 x 3mm	0.11	0.12

## How to process the material

Prior to use, stir up NEUKADUR ProtoCast 110 thoroughly.

Mix both components intensively at room temperature according to the indicated mixing ratio.

Before casting, make sure that parts and moulds are free from humidity and non-evaporated release agent.

The indicated mechanical values are only obtained after the above described tempering.

In case of lower layer thicknesses (approx. 1 – 3 mm), the times have to be doubled.

By the use of NEUKADUR Hardener PTG 1, the elasticity will be increased.

A better dimensional stability under heat and a higher modulus of elasticity are achieved by the use of NEUKADUR Hardener PTG 4.

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

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### **Form of delivery**

NEUKADUR ProtoCast 110	1 kg	5 kg	30 kg
NEUKADUR ProtoCast Hardener PTG 1	1 kg	5 kg	30 kg
NEUKADUR ProtoCast Hardener PTG 4	1 kg	5 kg	30 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**

Users should make use of the current safety data sheets, which contain physical, ecological, toxicological, and other data relating to safety, to inform themselves on the safe handling and storage of 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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