NEUKADUR ProtoAmid 80

2-C PUR Vacuum Casting System
PA 6

altropol

Main features

- properties similar to those of PA 6
- medium-viscous
- can be processed by hand and machine
- very high impact strength
- very high dimensional stability under heat

Applications

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

		ProtoAmid 80	ProtoAmid Comp. B4	ProtoAmid Comp. B10
Colour		transparent amber	transparent brown	Transp. colourless
Mixing ratio	p.b.w.	100	55	60
Density 20 °C	g/cm³	1.00	1.17	1.15
Viscosity mPas	(25°C)	7,000	400	700
Mixed viscosity	(25°C)		2,200	3,100
Pot life in minutes	(20°C)		2.5	10
Demouldable (min)	(70°C)		20 - 30	60 - 90

Mechanical values (approx. values after 5h 100°C)

Hardness	Shore D	DIN 53505	78	78
Colour			transparent amber	transparent amber
Tensile strength	MPa	DIN 53455	36	33
Tensile elongation	%	DIN 53455	33	37
Flexural strength	MPa	DIN 53452	59	50
Bending elongation	%	DIN 53452	18	16
Modulus in flexure	MPa	DIN 53457	800	650
Impact strength	KJ/m²	DIN 51230	42	---
Dimensional stability under heat	°C	HDT	>120	>120
Linear shrinkage	% approx.	500 x 50 x 3mm	1.3	2.3

How to process the material

NEUKADUR ProtoAmid 80 tends to crystallize out. In this case, it has to be melted and homogenized at approx. 90°C before processing.

ProtoAmid 80 has to be homogenized thoroughly before use. Preheat casting mould / tool to 70°C. Degas ProtoAmid 80 for 5-10 minutes under full vacuum, then mix resin and the desired hardener intensively with each other according to the indicated mixing ratio. For casting, reduce the vacuum to approx. 50 mbar.

The indicated mechanical values are only obtained after the above described tempering. Alternatively, we have also available the hardener ProtoAmid Comp. B2 with which one can achieve further improved mechanical and chemical resistances. For casting with ProtoAmid Comp. B2 or B4, we recommend the use of a pressure differential facility.

By a following step tempering (8h 100°C, 8h 120°C, 8h 140°C), the heat stability can be increased significantly (>150°C).

Form of delivery

NEUKADUR ProtoAmid 80	1 kg and 5 kg
NEUKADUR ProtoAmid Comp. B2	0.50 kg and 2.50 kg
NEUKADUR ProtoAmid Comp. B4	0.55 kg and 2.75 kg
NEUKADUR ProtoAmid Comp. B10	0.60 kg and 3.00 kg

Storage

The material should be kept in tightly closed original receptacles at temperatures of 20 - 25 °C. When duly stored, the materials can be used within the shelf life indicated on the labels.

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 the products.

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