

# NEUKADUR MultiCast 15

2-C PUR Fast-Cast System

Binder with a long pot life and a high dimensional stability under heat

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## Main features

- low-viscous
- easy to process
- good curing properties with a relatively long pot life
- low shrinkage
- high temperature stability

## Applications

- production of negatives/positives
- universally for all kinds of moulds and patterns
- vacuum deep-drawing tools and milling supports

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

		NEUKADUR MultiCast 15	NEUKADUR Hardener ISO 3	Unfilled mixture	Mixture filled with NEUKADUR filler B
Colour		beige	brown	beige	brown
Mixing ratio	p.b.w.	100	170		300
Density 20 °C	g/cm <sup>3</sup>	1.04	1.1	1.05	1.6
Viscosity RT	mPa·s	820	100	170	4100

## Properties of the mixture (approx. values)

			Unfilled mixture	Filled mixture
Pot life	(100g) min	room temperature	14	17
Demoulding time at 25°C				
4 – 5 mm	hours		24	4
30 – 40 mm	hours			2.5
Hardness	Shore D	DIN 53505	80	85
Tensile strength	MPa	DIN 53455	16	24
Tensile elongation	%	DIN 53455	13	6
Flexural strength	MPa	DIN 53452	27	40
Bending elongation	%	DIN 53452	4	1.5
Modulus in flexure	MPa	DIN 53457	725	3250
Temperature stability				
10mm thick layer	°C			130
20mm thick layer	°C			140
Linear shrinkage	%	500 x 50 x 25 mm		0.1
Coefficient of linear expansion (16 h 80 °C)	10 <sup>-6</sup> K <sup>-1</sup>	DIN 53752		86

## How to process the material

Before using NEUKADUR MultiCast 15, mix the same thoroughly until it has got a homogeneous appearance.

Mix both components thoroughly with each other at room temperature (> 18°C) according to the indicated mixing ratio.

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

As filler we recommend NEUKADUR filler B (ceramic) or filler AL (aluminium powder).

In case of the above mentioned example it makes sense to stir 100 p.b.w. of filler into NEUKADUR Multicast 15 and 200 p.b.w. of filler into the NEUKADUR hardener ISO 3.

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After this, let the mixture rest for approx. 30 – 45 minutes for evaporation purposes.

After having stirred the mixture of NEUKADUR MultiCast 15/filler for a short time, transfer the same as quantitatively as possible to the mixture of NEUKADUR hardener/filler and stir the compound thoroughly for 1 to 2 minutes, then proceed to casting immediately.

If the mixing time is too short, it may happen that the filler deposits and the casting only cures insufficiently or that it does not cure at all (incompatibility).

## Tempering

Submit the cured NEUKADUR MultiCast 15/ISO 3/filler parts to a so-called stepped tempering, above all before using them as deep-drawing mould.

We recommend: 2 h 80 °C – 2 H 100 °C – 2 h 120 °C – 2 h 140 °C

## Form of delivery

NEUKADUR MultiCast 15	1.00 kg	5.00 kg	10.00 kg	30.00 kg	
NEUKADUR Hardener ISO 3	1.70 kg	8.50 kg	17.00 kg	21.30 kg	30.00 kg
NEUKADUR filler B	5.00 kg	10.00 kg	25.00 kg		

## Storage

We recommend keeping the material in tightly closed original receptacles at temperatures of 15 - 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 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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