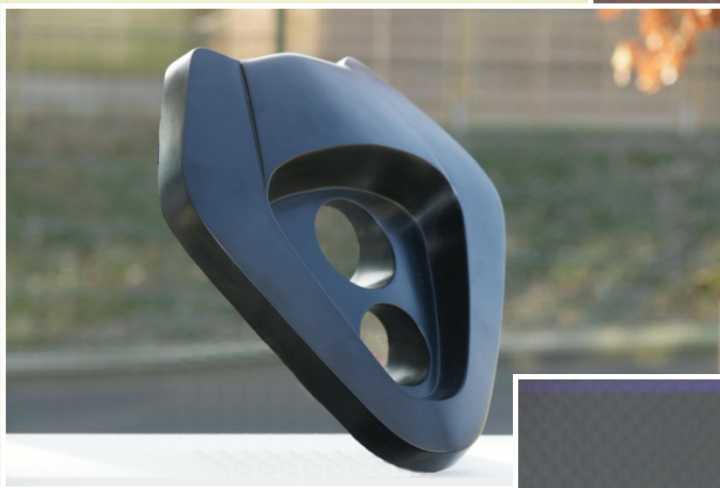
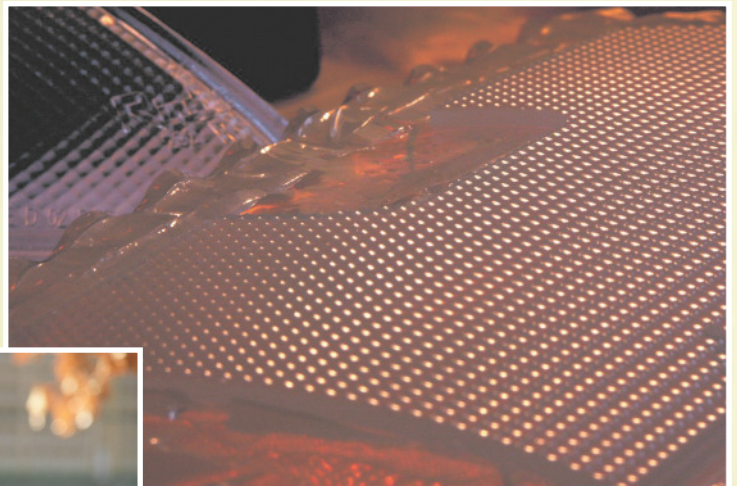


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Prototyping

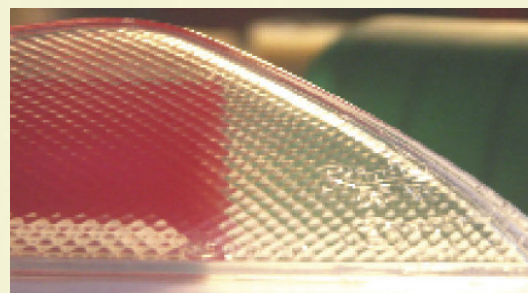
Vacuum Casting Resins
and RIM Systems



NEUKADUR Prototyping Program Vacuum Casting Resins and RIM Systems

The NEUKADUR Prototype Casting Systems stand out for their special features:

- unfilled, low- to medium viscous
- available in neutral color or dyed
- quick curing and demoulding
- variable pot lives possible
- hardness adjustable
- thermoplastic character (PP, ABS, PE, etc.)
- character similar to that of rubber (EPDM)
- high impact strength
- high elongations



NEUKADUR ProtoAmid – Polyamide Character

Type	Hardener	Color	Character similar to	MR (weight) 100:	Pot life min	demouldable after min	Hardness Shore D	Tensile strength N/mm ²	Modulus in flexure N/mm ²	Impact strength KJ/m ²	HDT °C
40	B 2	yellow, transparent	HD-PE	25	15	30 - 60	42	22	185	>150	80
60	B 4	yellow, transparent	HD-PP	40	4	30 - 60	58	20	195	>150	100
70	B 4	amber, transparent	PA	50	4	30 - 60	73	36	580	>150	140
80	B 4	amber, transparent	PA	55	2,5	20 - 80	80	37	800	42	>150

For the products of the NEUKADUR ProtoAmid series, we have available the NEUKADUR hardeners ProtoAmid Comp. B 2, B 4 and B 10 with which the pot life can be adapted individually. In addition to this, one can thus present special features of the material. The indications as to the mechanical properties are approx. values.

NEUKADUR ProtoRIM – Systems for low-pressure processes

Type	Hardener	Color	Character similar to	MR (weight) 100:	Pot life seconds *	demouldable after min	Hardness Shore D	Tensile strength N/mm ²	Modulus in flexure N/mm ²	Impact strength KJ/m ²	HDT °C
70 R	70 B	beige or black	PP / ABS	140	40 - 50	10 - 15	70	20	300	>150	70
100 R	100 B	beige or black	ABS	80	40 - 50	10 - 15	75 - 80	38	1,000	70	100
111 R	111 B	beige or black	ABS	100	50 - 60	15 - 20	80	57	1,650	19	100
130 R	130 B	beige or black	ABS	80	60	15 - 20	75 - 80	40	1,050	45	130
180 R	180 B	beige or black	ABS	80	35 - 45	10 - 15	75 - 80	34	1,000	28	180

* The pot lives can be adapted individually with the pot life extender NEUKADUR ProtoRim VZ. The indications as to the mechanical properties are approx. values.

ProtoSil RTV Silicone Rubber

Type	Hardener	Color	Hardness Shore A	MR (weight) 100:	Pot life RT min	Mixed viscosity mPas	Tensile strength N/mm ²	Resistance to tear propagation N/mm ²	Tensile elongation %	HDT °C
230	230 B	colourless translucent	25	10	90	25,000	4.5	20	850	160
240	240 B 1 *	colourless translucent	42	10	80	45,000	5.0	25	700	180
250	250 B	blue	50	10	80	95,000	5.0	5.5	400	200

* Alternatively, we have also available the NEUKADUR crosslinker ProtoSil RTV 240 Comp. B 2 having an oiling character. The indications as to the mechanical properties are approx. values.

NEUKADUR ProtoCast, ProtoFlex Vacuum Casting Systems

Elastic Systems

Type	soft medium hard transparent	Hardener	Color	MR (weight) 100:	Pot life min	demouldable after min	Hardness Shore A / D	Tensile strength N/mm ²	Tensile elongation %	Resistance to tear propagation KJ/m ²	HDT °C
ProtoFlex 110	+ - - -	PTG 1	beige	14	5 – 25	2 – 24h	A 20	2,0	1,500	19	50
ProtoFlex 150	+ - - -	PTG 1	beige	20	5 - 25	2 – 24h	A 50	7,0	500	8.0	80
ProtoFlex HS 50	+ - - +	HS 50B	yellow	100	6 – 7	30 – 60	A 50	1,8	1,300	14	100
ProtoFlex HS 75	+ - - +	HS 75B	yellow	75	10	30 – 60	A 75	6,0	1,900	35	100
ProtoFlex 190	- + - -	PTG 1	beige	54	5 – 25	2 – 24h	A 90	15	150	25	80
ProtoFlex HS 90	- + - +	HS 90B	yellow	50	5 – 6	30 - 60	A 90	14	1,600	50	120

The indications as to the mechanical properties are approx. values.

Rigid Systems

Type	soft medium hard transparent	Hardener	Color	MR (weight) 100:	Pot life min	demould- able after min	Hardness Shore A / D	Tensile strength N/mm ²	Modulus In flexure N/mm ²	Impact strength KJ/m ²	HDT °C
ProtoCast 100	- + - -	100 B	white	130	4 - 5	30 - 60	D 78	42	1,510	20	80
ProtoCast 112	- + - -	PTG 8	beige	75	2	15	D 78	25	460	100	85
ProtoCast 134	- + - +	134 B1	colorless, UV-stable	300	15 - 20	120	D 80	61	1,450	67	70
ProtoCast 102	- + - -	102 B	white	333	6 - 7	30 - 60	D 78	-	1,600	25	95
ProtoCast 103	- - + -	103 B	white translucent	200	4	30 - 60	D 80	68	2,350	30	100
ProtoCast 105	- - + -	105 B	white	200	5 - 7	30 - 60	D 82	71	2,300	35	105
ProtoCast 113	- - + -	PTG 4	beige	100	3	20 - 30	D 78	48	1,200	31	85
ProtoCast 115	- - + -	PTG 4	beige	100	3 - 4	30 - 60	D 82	60	1,750	25	105
ProtoCast 120	- - + -	120 B1	beige	154	6 - 7	30 - 60	D 84	55	1,500	70	115
ProtoCast 140	- - + -	140 B	black	133	7	45 - 60	D 80	61	2,000	13	140
ProtoCast 195	- - + +	195 B	colorless	140	5 - 7	30	D 80	64	1,900	60	95
ProtoCast 225	- - + +	225 B	colorless, UV-stable	130	7	30 - 45	D 80	54	2,300	60	95

The indications as to the mechanical properties are approx. values.

The mentioned products are standard products. We have a large number of further products and modifications as well as variations of the pot lives and processing times at your disposal.

The indicated values and properties are not binding. For more detailed information, please refer to the particular technical data sheets.

AltroColor PU Color Pastes

As completion to the prototype program, Altropol also delivers color pastes in metering bottles of 500 ml each in the following primary colors:

- AltroColor PU 5001, white
- AltroColor PU 5007, green
- AltroColor PU 5008, flame red
- AltroColor PU 5011, lemon yellow
- AltroColor PU 5015, blue
- AltroColor PU 5036, black

NEUKADUR Epoxy Resins

- Surface resins
- Coupling pastes
- Casting compounds
- Casting resins
- Laminating resins/pastes
- Infusion resins
- Foam systems
- Epoxy pastes

NEUKASIL RTV Silicones

- addition- and condensation-crosslinking
- castable / brushable / high strength
- up to Shore A 65

Auxiliaries and Fillers

- metallic and mineral fillers
- EP/PU glueing systems as well as auxiliaries for the infusion method
- Cups, brushes, gloves
- Glass fabric
- Release agents
- Thixotropic agents
- Detergents
- Sheet wax
- Polyester patching compounds
- Tooling boards
- Modelling compounds

NEUKADUR Polyurethanes

- Fast-cast resins
- Casting resins
- Casting compounds, hard and flexible
- Prototype casting resins
- RIM resins
- Foam systems
- Altrofloor floor coating systems

AltroColor Color Paste Systems

- unplasticized and solvent-free color pastes for epoxy resin- and polyurethane resin systems
- Pigment pastes for oily wood preservatives and wood glazes

NEUKAPOL

- Polyurethane raw materials

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