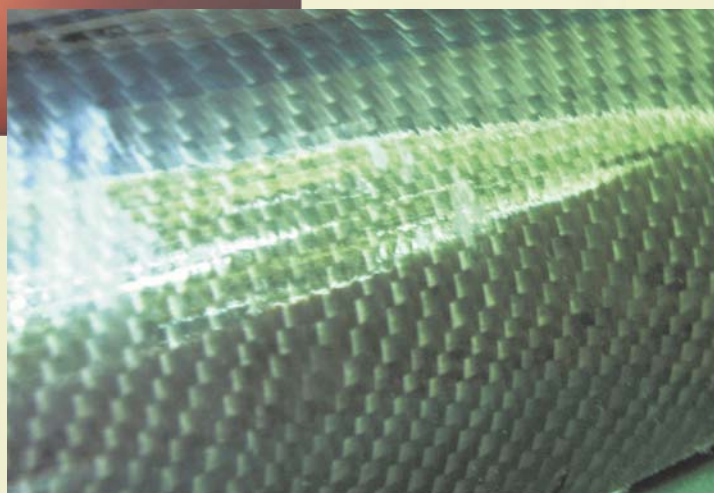
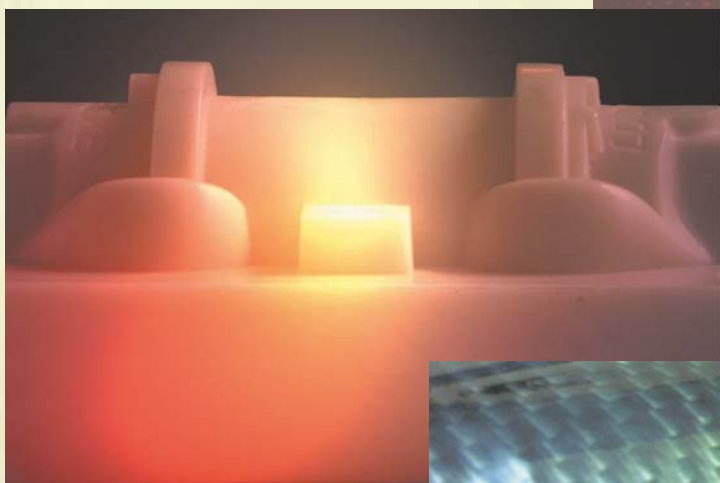
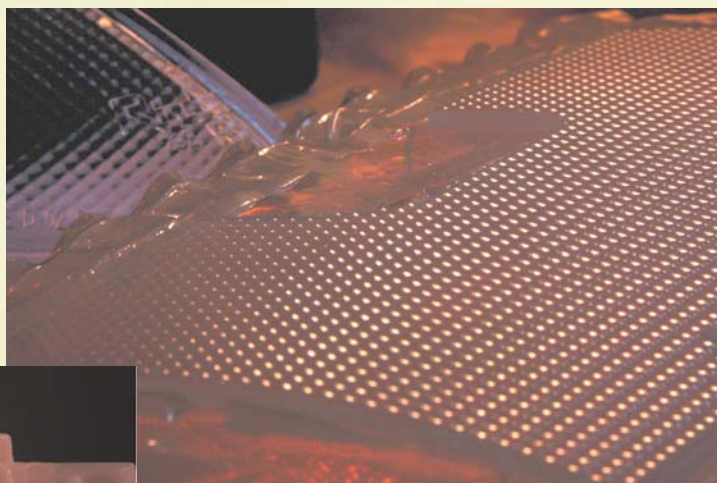


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## Prototyping

Vacuum Casting Resins  
and RIM Systems

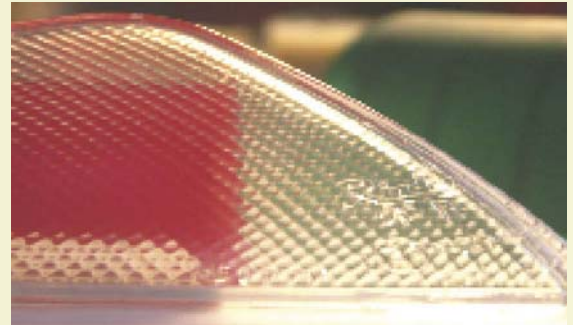


# NEUKADUR Prototyping-Program

## Vacuum Casting Resins and RIM-Systems

The NEUKADUR prototype casting systems stand out for their special features:

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



### NEUKADUR ProtoCast

Type	Hardener	Character similar to that of	Colour	MR (weight) 100:	Pot life minutes	demouldable after minutes (70 °C)	Hardness Shore D	Tensile strength N/mm <sup>2</sup>	Modulus in flexure N/mm <sup>2</sup>	Impact strength KJ/m <sup>2</sup>	HDT °C
100 *	Comp. B	PP / ABS	white	130	4 - 5	30 - 60	78	42	1,510	20	80
110	PTG 1	ABS	beige	100	4	60 - 90	78	29	1,150	38	75
112	PTG 8	PE / PP	beige	75	2	15 - 30	78	25	460	100	65
113	PTG 4	ABS	beige	100	3	20 - 30	78	48	1,200	31	85
115	PTG 4	ABS	beige or black	100	3 - 4	30 - 60	82	60	1,750	25	105
116	PTG 1	ABS / PP	beige	100	2 - 3	20 - 30	74	40	1,050	30	80
120	PC 120 B 1 **	ABS / PA	beige or black	154	6 - 7	30 - 60	84	55	1,500	70	115
134	PC 134 B 1 ***	UV stable	transparent	300	15 - 20	120 - 150	80	61	1,450	67	70
140	Comp. B	ABS	black	133	7	45 - 60	80	61	2,000	13	140
195 ****	PC 195 B	PS	transparent	140	5 - 7	30 - 45	80	64	1,900	60	95
225 *****	PC 225 B	UV stable	transparent	130	7	30 - 45	80	54	2,300	60	95

\* Alternatively, we have available ProtoCast 100-05 having a pot life of 5 min or ProtoCast 100-15 having a pot life of 15 min.

\*\* Alternatively, we have also available NEUKADUR hardener ProtoCast 120 Comp. B 2 with which you obtain a higher HDT.

\*\*\* With NEUKADUR hardener ProtoCast 134 Comp. B 2, the pot life is approx. 120 minutes.

\*\*\*\* By mixing with NEUKADUR ProtoCast 195 L, you can adjust the pot life to approx. 10 minutes (see particular data sheet)

\*\*\*\*\* By mixing with NEUKADUR ProtoCast 225 L, you can adjust the pot life to approx. 17 - 40 minutes (see particular data sheet)

### NEUKADUR ProtoFlex

Type	Hardener	Character	Colour	MR (weight) 100:	Pot life minutes	demouldable after	Hardness Shore A	Tensile strength N/mm <sup>2</sup>	Tensile elongation %	Resistance to tear propagation N/mm	HDT °C
110	PTG 1	very soft	beige	14	5 - 25*	2 h - 24 h	20	2.0	1,500	19	50
150	PTG 1	medium hard	beige	20	5 - 25*	2 h - 24 h	50	7.0	500	8	80
190	PTG 1	hard	beige	54	5 - 25*	2 h - 24 h	90	15	150	25	80
HS 50	HS 50 B	medium hard	yellow, transp.	100	6 - 7	30 - 60 min	50	1.8	1,300	14	100
HS 75	HS 75 B	half-hard	yellow, transp.	75	10	30 - 60 min	75	6.0	1,900	35	100
HS 90	HS 90 B	hard	yellow, transp.	50	5 - 6	30 - 60 min	90	14	1,600	50	120

\* The NEUKADUR ProtoFlex types 110, 150 and 190 are available with the pot lives 5, 15 and 25 minutes as well as dyed in black. For the adjustment of the individual Shore A hardness, the ProtoFlex types can be mixed with each other according to the separate mixing table.

## NEUKADUR ProtoAmid

Type	Hardener	Colour	Character similar to that of	MR (weight) 100:	Pot life minutes	demould-able after minutes	Hardness Shore D	Tensile strength N/mm <sup>2</sup>	Modulus in flexure N/mm <sup>2</sup>	Impact strength KJ/m <sup>2</sup>	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 lives can be adapted individually. In addition to this, one can thus present special features of the material.

## NEUKADUR ProtoRIM

Type	Hardener	Colour	Character similar to that of	MR (weight) 100:	Pot life seconds *	demould-able after minutes	Hardness Shore D	Tensile strength N/mm <sup>2</sup>	Modulus in flexure N/mm <sup>2</sup>	Impact strength KJ/m <sup>2</sup>	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.

## ProtoSil RTV 2-C Silicone rubber

Type	Crosslinker	Colour	Hardness Shore A	MR (weight) 100:	Pot life RT minutes	Mixed viscosity mPas	Tensile strength N/mm <sup>2</sup>	Resistance to tear propagation N/mm <sup>2</sup>	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.

## AltroColor PU color paste

As supplement to the prototyping program, Altrapol also supplies dye pastes in metering bottles of 500ml each in the following fundamental colours:

- 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

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

## **NEUKADUR Epoxy Resins**

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

## **NEUKADUR Polyurethanes**

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

## **NEUKASIL RTV 2-C Silicones**

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

## **AltroColor color paste Systems**

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

## **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
- Pattern plates
- Modelling compounds

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