

**RAKU® TOOL Epoxy Liquid Systems**

Epoxy Resin	Epoxy Hardener	Stock level	Mix ratio (pbw)	Color	Pot life 25°C (min)	Layer thickness (mm)	Density g/cm <sup>3</sup> ca. (ISO 1183)	Key Properties	Applications
<b>RAKU® TOOL Epoxy Gelcoat Systems</b> 250 ml									
EG-2100	EH-2901-2	A	100 : 18	light blue	15 – 20	–	1.4	RT curing, thixotropic, can be polished and sanded, good interlayer adhesion, fast reactivity	Negatives, models, jigs and fixtures
	EH-2950-1	A	100 : 13	light blue	30 – 35	–	1.4	RT curing, thixotropic, can be polished and sanded, good interlayer adhesion, slow reactivity	
EG-2101	EH-2901-2	A	100 : 15	white	30 – 35	–	1.4	RT curing, thixotropic, polishable, easy to apply, fast reactivity	Negatives, models, jigs & fixtures, plaster working molds (ceramics)
	EH-2950-1	A	100 : 12	white	50 – 60	–	1.4	RT curing, thixotropic, polishable, easy to apply, slow reactivity	
EG-2102	EH-2901-2	A	100 : 10	blue	25 – 30	–	1.8	RT curing, abrasion resistant, chemical resistant, fast reactivity	Foundry patterns, foam molds, UP forming tools, tools and tooling aids
	EH-2950-1	A	100 : 8	blue	50 – 60	–	1.8	RT curing, abrasion resistant, chemical resistant, slow reactivity	
EG-2103	EH-2903-1	A	100 : 11	black	25 – 30	–	2.2	RT curing, iron filled, wear resistant, thixotropic, hard but workable	Foundry patterns, metal forming tools, wear resistant tooling aids
EG-2104	EH-2950-1	A	100 : 10	black	35 – 45	–	1.6	Temperature resistant (105°C), very easy to apply, can be polished to a high gloss	Gelcoat for laminate structures and other build-up methods, vacuum forming molds, RTM molds
EG-2105	EH-2901-2	B	100 : 25	green	15 – 20	–	1.3	Temperature resistant (105°C), excellent styrene resistance, easy to apply, can be polished to a high gloss	Gelcoat for laminate structures and other build-up methods, vacuum forming molds
EG-2105	EH-2950-1	A	100 : 20	green	40 – 50	–	1.3	Temperature resistant (120°C), excellent styrene resistance, easy to apply, can be polished to a high gloss	Gelcoat for laminate structures and other build up methods, vacuum forming molds, UP-laminated molds/press tools, RTM molds
EG-2107	EH-2950-1	A	100 : 14	black	120 – 150	–	1.7	Temperature resistant (180°C), easy to apply, good workability	Gelcoat for high temperature molds, prepreg lay up tools
<b>RAKU® TOOL Epoxy Coupling Layer</b> 500 ml									
EL-2209-1	EH-2950-1	A	100 : 10	gray	20 – 30	–	1.7	Prefabricated, two component coupling coat, temperature resistant (100°C)	Production of tools, molds and tooling aids with various systems like epoxy and polyurea
<b>RAKU® TOOL Epoxy Laminating Systems</b> 500 ml									
EL-2200	EH-2900	A	100 : 20	clear	70 – 90	8	1.1	RT curing, unfilled, low viscosity, good compatibility with glass fibers and fillers	General tool building and tooling aids, binder for various fillers
EL-2200	EH-2904-1	A	100 : 40	clear	40 – 50	8	1.1	RT curing, good wetting properties with glass fibers and fillers, impact resistance	General tool building and tooling aids, binder for various fillers, laminating system for the construction of flexible laminate structures
EL-2200	EH-2950-1	A	100 : 16	clear	50 – 60	8	1.1	Long pot life, good wetting properties, room temperature curing, temperature resistant up to 85°C	General tool building and tooling aids, does not attack EPS, supporting structures for Close Contour Pastes
EL-2201	EH-2904-1	A	100 : 50	clear	25 – 30	8	1.16	RT curing, unfilled, high mechanical properties at RT cure, fast reactivity	Jigs, foundry patterns, tooling aids, UP lay up tools, backing structures
	EH-2905-1	A	100 : 50	clear	60 – 70	8	1.16	RT curing, unfilled, high mechanical properties at RT cure, medium reactivity	
	EH-2906-1	A	100 : 50	clear	120 – 140	8	1.16	RT curing, unfilled, high mechanical properties at RT cure, slow reactivity	

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<b>RAKU® TOOL Epoxy Laminating Systems</b> 500 ml									
EL-2203	EH-2952-1	A	100 : 30	clear	50 – 60	8	1.17	Temperature resistant (120°C), unfilled, low viscosity, very good wetting properties, fast reactivity	Laminated molds, RTM or RIM tools, glass or carbon fiber laminates, resin infusion
	EH-2953-1	A	100 : 30	clear	70 – 80	8	1.1	Temperature resistant (120°C), unfilled, low viscosity, slow reactivity	
EL-2204	EH-2954-2	B	100 : 40	amber	90 – 110	8	1.2	Temperature resistant (190°C), unfilled, good wetting properties, fast reactivity	High temperature resistant glass or carbon fiber reinforced tools, high temperature prepreg lay up tools, backing structures
	EH-2955-2	B	100 : 40	amber	180 – 210	8	1.2	Temperature resistant (190°C), unfilled, good wetting properties, slow reactivity	
<b>RAKU® TOOL Epoxy Laminating Pastes</b> 500 ml									
EL-2207-3	EH-2907-3	A	100 : 12	gray/green	30 – 35	15	1.0	Room temperature curing, can be used with a layer thickness of up to 15 mm, easy to apply by hand	Reinforcement of molds and tooling aids, backing structures, jigs, fixtures
EL-2207-3	EH-2912	B	100 : 12	gray/green	80 – 100	15	1.0	Room temperature curing, can be used with a layer thickness of up to 15 mm, easy to apply by hand	Reinforcement of molds and tooling aids, laminated shells, jigs and fixtures
<b>RAKU® TOOL Epoxy Casting Systems</b> 1000 ml									
EC-2400	EH-2952-1	A	100 : 7	blue	120 – 150	60	1.9	Abrasion resistant, temperature resistant (110-115°C), slow reactivity	Foundry patterns, copy models, foam molds
EC-2401	EH-2904-1	A	100 : 20	beige	40 – 50	10	1.6	With mineral filler, flows very well, fast reactivity	Foundry patterns, copy models, direct casting (negatives), jigs, fixtures, galvanobath models, working models for the ceramics industry
	EH-2905-1	A	100 : 20	beige	70 – 80	20	1.6	With mineral filler, flows very well, medium reactivity	
	EH-2906-1	A	100 : 20	beige	170 – 200	80	1.6	With mineral filler, flows very well, slow reactivity	
EC-2402	EH-2904-1	A	100 : 15	black	35 – 45	10	2.4	RT curing, with metal fillers, workable hard surface, fast reactivity	Foundry patterns, copy models, metal forming, general modeling
	EH-2905-1	A	100 : 15	black	70 – 80	20	2.4	RT curing, with metal fillers, workable hard surface, medium reactivity	
	EH-2906-1	A	100 : 15	black	200 – 230	80	2.4	RT curing, with metal fillers, workable hard surface, slow reactivity	
	EH-2902-1	A	100 : 15	black	180 – 210	40	2.2	RT curing, with metal fillers, impact resistant	
EC-2404	EH-2952-1	A	100 : 11	gray	100 – 120	60	1.7	Temperature resistant (120°C), aluminum filled, chemical resistant	Vacuum forming molds, jigs, injection molds, foam molding tools
<b>RAKU® TOOL Epoxy Infusion Systems</b> 500 ml									
EL-2203	EH-2970-1	A	100 : 30	clear	50 – 60	8	1.1	Low viscosity, no degassing under vacuum, excellent wetting properties, flows very well, cures well at room temperature, temperature resistant up to 120°C	Resin Infusion
EI-2500	EH-2953-1	B	100 : 30	clear	60 – 80	8	1.1	Room temperature curing, fast cure, good wetting properties, temperature resistant up to 110°C	Resin Infusion, RTM
EI-2500	EH-2970-1	A	100 : 30	clear	50 – 60	8	1.1	Temperature resistant (115°C), flows well, unfilled, low viscosity, good wetting properties	Resin Infusion, RTM
	EH-2971	A	100 : 30	clear	70 – 80	8	1.1		

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<b>RAKU® TOOL Epoxy Infusion Systems</b> 500 ml									
EI-2500	EH-2973	B	100 : 32	yellowish	70 – 80	8	1.1	Room temperature cure, no brittleness after room temperature cure overnight, easy de-molding, good wetting properties, flows very well under vacuum, temperature resistant up to 130°C	RTM, Resin Infusion
EI-2504	EH-2974	B	100 : 32	clear	210 – 270	8	1.1	Excellent wetting properties, flows very well, temperature resistant up to 170°C	Resin Infusion

**RAKU® TOOL Polyurethane / Polyurea Liquid Systems**

PUR Resin	PUR Hardener (Isocyanate)	Stock level	Mix ratio (pbw)	Color	Pot life at 25°C (min)	Layer thickness (mm)	Density g/cm <sup>3</sup> ca. (ISO 1183)	Key Properties	Applications
<b>RAKU® TOOL Polyurea Gelcoat Systems</b> 250 ml									
PG-3159-1	PH-3958	B	100 : 125	green	20 – 25	–	1.2	High wear resistance, high impact resistance	Foundry patterns, pattern plates, core boxes, impact protection
<b>RAKU® TOOL Polyurea Casting Systems</b> 1000 ml									
PC-3410	PH-3911-1	B	100 : 300	black	45 – 50	50	1.1	Hand cast, good moisture resistance, long pot life, no skull and crossbones label, high elongation at break. Shore A 40-45	Structural molds, closed plaster molds for the ceramics industry, concrete molds, vibration absorption, assembly jigs, impact protection
PC-3411	PH-3911-1	A	100 : 1000	black	30 – 35	50	1.1	Hand cast, good moisture resistance, long pot life, no skull and crossbones label, high elongation at break. Shore A 80-85	
PC-3458	PH-3958	A	100 : 500	orange	10 – 15 7 – 8 (40°C)	10	1.18	Excellent abrasion resistance, high number of castings, high impact strength, components are not toxic, no/little sand adhesion, can be cast by hand or machine dependent on system choice, good imprint accuracy	Foundry patterns, pattern plates, core boxes
PC-3459	PH-3958	A	100 : 250	beige	15 – 20	10	1.18		
<b>RAKU® TOOL Polyurethane Casting Systems</b> 1000 ml									
PC-3403	PH-3903	A	100 : 80	beige	30 – 40	20	1.2	Mass casting system for face casting	Metal forming tools, molds for prototyping, prototypes and backing for foundry patterns
	PH-3903 AC-9004	A	100 : 80 (380 – 400)	beige	60	> 300	1.6 – 1.7	Mass casting system with filler AC-9004 for large volume castings	
PC-3406-1	PH-3906	A	100 : 80	gray	15 – 20	–	1.24	Filled, easy to pour, low shrinkage, very accurate reproduction of finest patterns and details	Structural molds for formwork, concrete molds, plastic molds for the ceramics industry e.g. wash basin, sinks
PC-3412	PH-3923	A	100 : 17	white / opaque	2 – 3	100	1.11	Hand cast, components are nontoxic	Structural molds, assembly jigs, impact protection, production of flexible parts, fixtures
PC-3413-1	PH-3923	A	100 : 45	white / opaque	20 – 25	100	1.11	Hand cast, low moisture sensitivity, long pot life	Structural molds, impact protection, holding fixtures / jigs, production of flexible parts
PC-3414	PH-3915	A	100 : 20	beige	60 – 75	100	1.7	Can be cast in thick layers, low exotherm reaction in thick layers, superior interlayer adhesion, easily repaired or modified, can be filled additionally. Low-viscosity	Backing casting of models, molds, negatives and general support aids, direct casting of foundry patterns, jigs

**RAKU® TOOL Polyurethane / Polyurea Liquid Systems**

PUR Resin	PUR Hardener (Isocyanate)	Stock level	Mix ratio (pbw)	Color	Pot life at 25°C (min)	Layer thickness (mm)	Density g/cm³ ca. (ISO 1183)	Key Properties	Applications
<b>RAKU® TOOL Polyurethane Rapid Prototyping Systems</b>									
					Pot life at 25°C (sec)				
PR-3602	PH-3905	A	100 : 80	black	60	4	1.14	Simulates PE / PP, good impact strength, temperature resistant (90°C), fast demold time	Functional prototype parts & bumpers, short run production, rapid prototyping
PR-3607 FR	PH-3905	B	100 : 72	beige	70 – 75	4	1,27	Simulates ABS, UL94 V0 certified product	Short run production of flame retardant parts, functional prototype parts, Rapid Prototyping
PR-3608	PH-3905	A	100 : 80	black	50 – 60	4	1.19	Simulates PP / ABS, short demold time, temperature resistant (130-135°C), Shore D 75-80	Functional prototype parts, short run production, rapid prototyping
PR-3608	PH-3908	B	100 : 75	black	50 – 60	4	1.18	Simulates PP / ABS, impact resistant, fast demold time, no brittle phase	Functional prototype parts, short run production, rapid prototyping
PR-3654	PH-3905	A	100 : 55	black	50 – 60	4	1.35	Simulates PP / ABS, short demold time, temperature resistant (130°C), glass fiber filled, Shore D 80-85	Functional prototype parts, short run production, rapid prototyping
PR-3654	PH-3908	B	100 : 53	black	50 – 60	4	1.30	Simulates PP / ABS, high temperature resistance (100°C), impact resistant, no brittle phase, glass fiber filled	Functional prototype parts, short run production, rapid prototyping
<b>RAKU® TOOL Polyurethane Fast Cast Systems</b> <span style="float: right;">1000 ml</span>									
PF-3700-2	PH-3977	A	100 : 100	white	3 – 4	10	1.0 – 1.1	Fast cure and fast demold, unfilled, very low viscosity, good temperature resistance, improved moisture resistance, high fill rate possible, very high strength	Foundry patterns, core boxes, negatives, pattern plates, checking casts, replicas, vacuum forming molds, jigs
	PH-3977 (AC-9004)	A	100 : 100 (300)	beige	4 – 5	60	1.6 – 1.7	With filler AC-9004	
PF-3701-2	PH-3977	A	100 : 100	white	5 – 6	20	1.0 – 1.1	Fast cure and fast demold, unfilled, very low viscosity, very good temperature resistance, improved moisture resistance, high fill rate possible, very high strength	
	PH-3977 (AC-9004)	A	100 : 100 (300)	beige	6 – 7	80	1.6 – 1.7	With filler AC-9004	
<b>RAKU® TOOL Polyurethane Foam Systems</b>									
					Cream time 30 g / sec RT	Gel time 30 g / min:sec	Specific weight g/l ca.		
PE-3801	PH-3905	B	100 : 37.5	beige	90 – 120	3:00 – 3:30	100 – 110	Soft – flexible and compressible, very fast reactivity, short demold time, good flow properties, very low weight of foam	Foam system for seat upholstery
PE-3801	PH-3980	B	100 : 50	beige	45 – 70	2:00 – 3:00	80 – 90		
PE-3803	PH-3905	B	100 : 100	beige	180 – 220 (200g)	12 – 13 (200g)	100 – 120	Fast reactivity, good flow properties, fast cure	Production of rigid molded parts

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Resin	Hardener	Stock level	Mix ratio (pbw)	Color	Pot life at 25°C (min)	Layer thickness (mm)	Density g/cm <sup>3</sup> ca. (ISO 1183)	Key Properties	Applications
<b>RAKU® TOOL Accessories</b>									
AC-9002		A		gray		–	0.60 – 0.85	Light mineral filler, bulk density 0.35-0.4 g/cm <sup>3</sup> , light filler	Filler for EP- and PU systems
AC-9004		A		white		–	2.4	Inorganic filler, bulk density 1.6 g/cm <sup>3</sup>	Filler for EP- and PU systems
AC-9102		A		white		–	0.8	Paste release agent, wax based, can be polished	For general applications
AC-9103		A		white		–	0.72	Liquid release agent, wax based, can be polished	For the release of general and detailed mold surfaces

EG	Epoxy Gelcoat/Resin	PG	Polyurea Gelcoat Resin	PE	Polyurethane Foam Polyol
EL	Epoxy Laminating/Resin	PC	Polyurethane or Polyurea Casting/Polyol or Resin	AC	Ancillaries
EC	Epoxy Casting/Resin	FR	Polyurethane Rapid Prototyping/Polyol		
EI	Epoxy Infusion/Resin	PF	Polyurethane Fast Cast/Polyol		
EH	Epoxy Hardener	PH	Polyurethane/Isocyanate		

A = available in stock,  
B = please check with customer service

temperature resistant up to 105°C	temperature resistant up to 135°C
temperature resistant up to 115°C	temperature resistant up to 190°C
temperature resistant up to 120°C	

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