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RAKU-TOOL[®] Liquid Products

Casting, Laminating, Gelcoat and Multipurpose Resins.
Our systems for your applications.



RAMPF[®]
discover the future

RAKU-TOOL® Product Overview/2 Component Liquid Epoxy Systems

Epoxy Resin	Epoxy Hardener	Mix Ratio (pbw)	Potlife at 25°C (min)	Color	Layer thickness (mm)	Density g/cm ³ (ISO 1183)	Key Properties	Applications
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RAKU-TOOL® Epoxy Gelcoat Systems

			250 ml					
EG-2100	EH-2901	100:14	15	Blue	–	1.4	RT curing, thixotropic, polishable, good interlayer adhesion, fast reactivity	negatives, models, jigs and fixtures
	EH-2950	100:14	35	Blue	–	1.4	RT curing, thixotropic, polishable, good interlayer adhesion, slow reactivity	
EG-2101	EH-2901	100:12	25	White	–	1.4	RT curing, thixotropic, polishable, easy to apply, fast reactivity	negatives, models, jigs & fixtures, plaster working molds (ceramics)
	EH-2950	100:12	60	White	–	1.4	RT curing, thixotropic, polishable, easy to apply, slow reactivity	
EG-2102	EH-2901	100:8	25	Blue	–	1.8	RT curing, abrasion resistant, chemical resistant, fast reactivity	foundry patterns, foam molds, UP forming tools, tools and tooling aids
	EH-2950	100:8	60	Blue	–	1.8	RT curing, abrasion resistant, chemical resistant, slow reactivity	
EG-2103	EH-2903	100:11	25	Black	–	2.2	RT curing, iron filled, abrasion resistant, thixotropic, hard but workable	foundry patterns, metal forming tools, abrasion resistant tooling aids
EG-2104	EH-2950	100:10	45	Black	–	1.7	temperature resistant, 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-2950	100:20	35	Green	–	1.3	temperature resistant (120°C), excellent styrene resistance, can be polished	laminate structures, vacuum forming molds, UP tools/ laminates, RTM molds
EG-2107*	EH-2951*	100:20	2–2.5h	Black	–	1.6	temperature resistant (180°C), easy to apply, good workability	gelcoat for high temperature molds, prepreg lay up tools, production of small to large molds

RAKU-TOOL® Epoxy Laminating Systems

			500 ml					
EL-2200	EH-2900	100:20	70	Clear	8	1.1	RT curing, unfilled, low viscosity, good compatibility with glass fibres and fillers,	general tool building and tooling aids, backing structures, binder for quartz sand for MSF tools
EL-2201	EH-2904	100:50	35	Clear	8	1.1	RT curing, unfilled, high mechanical properties at RT cure, fast reactivity	jigs, foundry patterns, tooling aids, UP lay up tools, backing structures
	EH-2905	100:50	65	Clear	8	1.1	RT curing, unfilled, high mechanical properties at RT cure, medium reactivity	
	EH-2906	100:50	145	Clear	8	1.1	RT curing, unfilled, high mechanical properties at RT cure, slow reactivity	
EL-2202	EH-2900	100:15	45	White	8	1.4	RT curing, filled, low viscosity, good wetting properties, high mechanical properties	universal production of tools and tooling aids, jigs and foundry patterns, backing structures
EL-2203	EH-2952	100:25	60	Clear	8	1.1	temperature resistant (120°C), unfilled, low viscosity, fast reactivity	laminated molds, RTM or RIM tools, glass or carbon fibre laminates, resin infusion
	EH-2953	100:25	100	Clear	8	1.1	temperature resistant (120°C), unfilled, low viscosity, slow reactivity	

RAKU-TOOL® Product Overview/2 Component Liquid Epoxy Systems

Epoxy Resin	Epoxy Hardener	Mix Ratio (pbw)	Potlife at 25°C (min)	Color	Layer thickness (mm)	Density g/cm ³ (ISO 1183)	Key Properties	Applications
EL-2204*	EH-2954*	100:40	2h 15Min	Amber	8	1.2	temperature resistant (180°C), unfilled, good wetting properties, slow reactivity	high temperature resistant glas or carbon fibre reinforced tools, high temperature pre-preg lay up tools, backing structures
	EH-2955*	100:40	6h	Amber	8	1.2	temperature resistant (180° C), unfilled, good wetting properties, medium reactivity	
EL-2207	EH-2907	100:10	90	Blue	15–25	1.2	laminating paste, RT curing	reinforcement of molds and tooling aids, backing structures, jigs, fixtures
EL-2208	EH-2952	100:10	120	Black	15–25	0.8	laminating paste, high temperature resistance (115°C)	backing structures for molds and tooling aids, laminated shells, jigs and fixtures

RAKU-TOOL® Epoxy Laminating Systems/Coupling Layer

			500 ml					
EL-2209	EH-2950	100:10	30	Gray	8	1.6	prefabricated, two component coupling coat, temperature resistant (115°)	production of tools, molds and tooling aids with various systems like epoxy and polyurea systems

RAKU-TOOL® Epoxy Pastes (hand applied)

			500 ml					
EP-2300	EH-2930	100:100	60	Brown	40	0.65	multipurpose modeling paste (hand applied paste)	styling and design models, master models, patterns

RAKU-TOOL® Epoxy Adhesives

			500 ml					
EL-2210	EH-2910	100:60	60	Transparent	8	1.1	multipurpose adhesive, RT curing, long pot life, easy to mix	universally applicable, especially suited for our working boards (except WB-700)
EP-2304	EH-2934	100:20	90	Green	10	0.9	similar shore hardness	bonding of working board WB-0700
EP-2305	EH-2904	100:30	25	Apricot	10	0.8	similar shore hardness, RT curing, slow reactivity	bonding of styling boards (SB) with a density < 0.55 g/cm ³
	EH-2903	100:25	15	Apricot	10	0.8	similar shore hardness, RT curing, fast reactivity	
EP-2306	EH-2904	100:30	35	Brown	10	0.8	similar shore hardness, RT curing, slow reactivity	bonding of modeling boards (MB) with a density 0.55-0.72 g/cm ³
	EH-2903	100:25	20	Brown	10	0.8	similar shore hardness, RT curing, fast reactivity	

RAKU-TOOL® Epoxy Casting Systems

			1000 ml					
EC-2400	EH-2909	100:6	45	Blue	30	1.9	abrasion resistant, good chemical resistance, easy to pour, fast reactivity	foundry patterns, copy models, metal forming, foam molds
	EH-2952	100:6	3.5–4h	Blue	60	1.9	abrasion resistant, temperature resistant (110-115°C), slow reactivity	
EC-2401	EH-2904	100:20	45	Ivory	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

RAKU-TOOL® Product Overview/2 Component Liquid Epoxy Systems

Epoxy Resin	Epoxy Hardener	Mix Ratio (pbw)	Potlife at 25°C (min)	Color	Layer thickness (mm)	Density g/cm³ (ISO 1183)	Key Properties	Applications
EC-2401	EH-2905	100:20	90	Ivory	20	1.6	with mineral filler, flows very well, medium reactivity	foundry patterns, copy models, direct casting (negatives), jigs, fixtures, galvanobath models, working models for the ceramics industry
	EH-2906	100:20	180	Ivory	80	1.6	with mineral filler, flows very well, slow reactivity	
EC-2402	EH-2904	100:15	45	Black	10	2.2	RT curing, with metal fillers, workable hard surface, fast reactivity	foundry patterns, copy models, metal forming, general modeling
	EH-2905	100:15	90	Black	20	2.2	RT curing, with metal fillers, workable hard surface, medium reactivity	
	EH-2906	100:15	180	Black	80	2.2	RT curing, with metal fillers, workable hard surface, slow reactivity	
	EH-2902	100:15	140	Black	40	2.2	RT curing, with metal fillers, impact resistant	
EC-2403	EH-2904	100:20	40	Gray	10	1.7	RT curing, with metal fillers, good workability, easy to pour, fast reactivity	general mold making, vacuum forming molds, foundry patterns for a small number of parts
	EH-2905	100:20	75	Gray	20	1.7	RT curing, with metal fillers, good workability, easy to pour, medium reactivity	
	EH-2906	100:20	160	Gray	80	1.7	RT curing, with metal fillers, good workability, easy to pour, slow reactivity	
EC-2404	EH-2952	100:9	145	Gray	60	1.7	temperature resistant (120°C), with metal fillers, chemical resistant	vacuum forming molds, jigs, injection molds, foam molding tools

RAKU-TOOL® Epoxy Infusion Systems

			500 ml					
EI-2500	EH-2970	100:25	60	Clear	8	1.1	temperature resistant (120°C), flows well	resin infusion, RTM

RAKU-TOOL® Close Contour Pastes (machine applied)

			1000 ml					
CP-6050 R	CP-6050 H	100:100	30–40	Light Brown	40	0.5	smooth, homogeneous surface, easy to machine, very little dust	design and styling models, molds
CP-6070 R	CP-6070 H	100:100	30–40	Brown	40	0.75	fine, homogeneous surface	design and styling models, master models, molds
CP-6071 R	CP-6070 H	100:100	30–40	Gray	40	0.75	fine, homogeneous surface	design and styling models, master models, molds

*	Product still undergoing tests
EG	Epoxy Gelcoat/Resin
EL	Epoxy Laminating/Resin
EP	Epoxy Paste/Resin
EC	Epoxy Casting/Resin
EI	Epoxy Infusion/Resin
CP	Epoxy Close Contour Paste/Resin
EH	Epoxy Hardener

RAKU-TOOL® Product Overview/2 Component Liquid Polyurethane Systems

PUR-Resin (Polyol)	PUR-Hardener (Isocyanate)	Mix Ratio (pbw)	Potlife at 25°C (min)	Color	Layer thickness (mm)	Density g/cm³ (ISO 1183)	Key Properties	Applications
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RAKU-TOOL® Polyurethane Casting Systems

			1000 ml					
PC-3403	PH-3903	100:80	30–40	Beige	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)	100:80 (380–400)	60	Beige	>300	1.6–1.7	mass casting system with filler AC-9004 for large volume castings	
PC-3406	PH-3906	100:12	25–30	Ivory	20	1.1	high tear propagation resistance, Shore A 55-60	soft/flexible casting molds, plaster molds for the ceramics industry
PC-3407	PH-3906	100:30	25–30	Ivory	20	1.3	high tear propagation resistance, Shore A 65-70	soft/flexible casting molds, plaster molds for the ceramics industry
PC-3410	PH-3910	100:25	6-8 (125ml)	Red/Brown	10	1.1	RT curing, soft/flexible, high tear propagation resistance, very good resistance against mechanical influences (vibration)	soft/flexible casting molds, closed plaster molds for the ceramics industry

RAKU-TOOL® Polyurea Casting Systems

			1000 ml					
PC-3442	PH-3940	100:50	10–15	Amber	20	1.1	high tear strength and elongation, shore A 80	flexible molds and parts, impact protection, vibration absorption, conveyor rollers
PC-3450	PH-3952	100:50	20–25	Amber	10	1.1	high abrasion resistance and high impact strength, shore D 50-55	pattern plates, core boxes, foundry patterns
PC-3451	PH-3952	100:60	20–25	Light Beige	10	1.1	high abrasion resistance and high impact strength, shore D 60-65	pattern plates, core boxes, foundry patterns

RAKU-TOOL® Polyurethane Rapid Prototyping Casting Systems

			1000 ml					
PR-3600	PH-3904	100:33	90 sec	Black	4	1.2	simulates rubber, Shore A 60	rapid prototyping, short run production
PR-3600	PH-3900	100:40	90 sec	Black	4	1.2	simulates rubber, Shore A 80	rapid prototyping, short run production
PR-3602	PH-3905	100:75	60 sec	Black	4	1.2	simulates PP	rapid prototyping, short run production
PR-3604	PH-3905	100:80	90 sec	Black	5	1.2	simulates ABS, (115°C)	rapid prototyping, short run production
PR-3605	PH-3905	100:80	60 sec	Black	4	1.2	simulates ABS, (115°C)	rapid prototyping, short run production
PR-3607	PH-3905	100:65	60 sec	Beige	4	1.2	flame retardant	rapid prototyping, short run production

RAKU-TOOL® Polyurethane Fast Cast Systems

			1000 ml					
PF-3700	PH-3970	100:100	2–3	Beige	10	1.0–1.2	unfilled two component system, mix ratio 1:1, fast curing	foundry patterns and core boxes, negatives and various tooling aids, checking castings, prototype parts

RAKU-TOOL® Product Overview/2 Component Liquid Polyurethane Systems

PUR-Resin (Polyol)	PUR-Hardener (Isocyanate)	Mix Ratio (pbw)	Potlife at 25°C (min)	Color	Layer thickness (mm)	Density g/cm ³ (ISO 1183)	Key Properties	Applications
PF-3700	PH-3970 (AC-9004)	100:100 (300)	4-5	Beige	10	1.6-1.7	unfilled two component system with filler AC-9004	foundry patterns and core boxes, negatives and various tooling aids, checking castings, prototype parts
PF-3701	PH-3971	100:100	5-6	Beige	20	1.0-1.2	unfilled two component system, mix ratio 1:1, slow curing	
	PH-3971 (AC-9004)	100:100 (300)	8-9	Beige	20	1.6-1.7	unfilled two component system with filler AC-9004	
PF-3702	PH-3972	100:15	4-5	White	20	1.7	two component system with filled polyol	
PF-3703	PH-3973	100:100	4-5	Gray	20	1.7	filled two component system	
PF-3704	PH-3974	100:100	8	Blue	100	1.7	filled two component system for casting thick layers	

RAKU-TOOL® Accessories

AC-9001	-	-	-	White	-	-	bulk density 1.0 g/cm ³	filler for EP- and PU systems
AC-9002	-	-	-	Gray	-	-	bulk density 0.35-0.4 g/cm ³ , light filler	filler for EP- and PU systems
AC-9004	-	-	-	White	-	-	bulk density 1.6 g/cm ³	filler for EP- and PU systems
AC-9102	-	-	-	White	-	0.8	paste release agent, wax based, can be polished	models made out of wood and board materials
AC-9103	-	-	-	White	-	0.72	liquid release agent, wax based, can be polished	tooling aids and tools made out of EP, PU and metal
AC-9500	-	-	-	Yellow	-	-	temperature resistant up to 135°-140°C /0.5-5.0 mm	self adhesive wax sheet for tooling aids

*	Product still undergoing tests
PC	Polyurethane Casting/Polyol
PR	Polyurethane Rapid Prototyping/Polyol
PF	Polyurethane Fast Cast/Polyol
PH	Polyurethane/Isocyanate
AC	Accessories

Our recommendations on the use of the material are based on many years of experience and current scientific and practical knowledge. They are, however, provided without any obligation on our part and do not relieve the buyer of the need for suitability tests. They do not constitute a legal relationship, nor are any protected third party rights whatsoever affected thereby. No liability accepted for misprints.

Version 2006/10

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