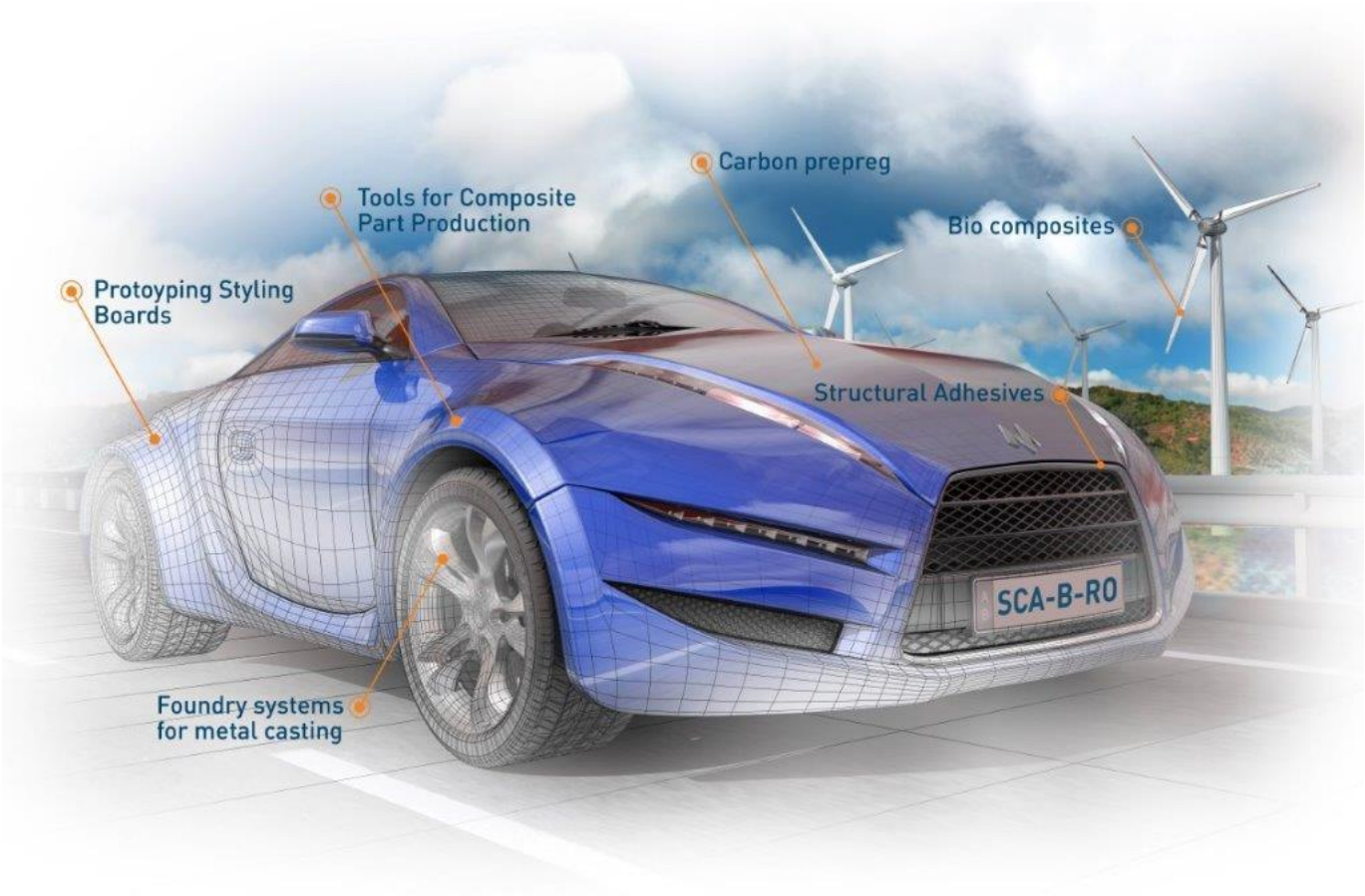
SCABRO
IDEAS TAKE SHAPE

TECHNICAL DATASHEET

RAKU-TOOL EL-2204

Epoxy



MALLENBOUW | COMPOSIETEN | LIJMEN

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RAKU-TOOL®
EL-2204 / EH-2954-2, EH-2955-2

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Epoxy Laminating System

Unfilled Epoxy System with variable reactivity (slow/medium)

Key Properties

- Pot life and curing time can be adjusted through choice of hardener
- Very high temperature resistance (190°C)
- Excellent wetting properties even with carbon fibers

Applications

- High temperature resistant, glass or carbon fiber impregnated tools
- Prepreg lay-up tools for high temperature curing
- Backing structures
- With corresponding gelcoat also suitable for tools with high temperature resistance

Processing Properties

			EL-2204	EH-2954-2	EH-2955-2
Color	visual		Amber	Yellowish	Yellowish
Mix ratio		parts by weight	100	40	
			100		40
Density	ISO 1183	g/cm³	ca.1.17	ca.1.02	ca.1.01
Viscosity at 25 °C	DIN 53019-1	mPa·s	4000-4500	150-200	100-150

			EL-2204 / EH-2954-2	EL-2204 / EH-2955-2
Mix viscosity at 25 °C	DIN 53019-1	mPa·s	1500-2000	1300-1800
Pot life at 25 °C	500 ml	min	110-130	230-250
Max. layer thickness		mm	8	8
Demold time		h	24	48

Cured / Mechanical Properties

Cure: 16h at RT + 14h at 180°C			EL-2204 / EH-2954-2	EL-2204 / EH-2955-2
Appearance	visual		Amber	Amber
Density	ISO 1183	g/cm³	ca.1.2	ca.1.2
Deflection temperature, HDT	ISO 75	°C	180-190	180-190
Glass Transition Temperature, Tg	DSC	°C	190-200	190-200
Flexural strength	ISO 178	MPa	105-115	95-105
Flexural modulus	ISO 178	MPa	4000-4500	4000-4500

Processing

The processing and material temperature should be between 20-25 ºC.
Mix the two components thoroughly in the ratio indicated. Degassing is recommended.
Impregnate each layer of cloths to construct the laminate layer by layer.
The mechanical properties and temperature resistance are only obtained through the post cure according to the recommended cure schedule.

Recommended cure schedule

After initial curing at room temperature for 12-24 hours depending on the size and thickness of the parts, the parts must be heated up to 180°C in steps and post cured for 14 hours at 180°C, then cooled down gradually. The curing time at room temperature, heating and cooling rate depend on the size and thickness of the parts.

Packaging

RAKU-TOOL® EL-2204	5 kg, 25 kg
RAKU-TOOL® EH-2954-2	5 kg
RAKU-TOOL® EH-2955-2	5 kg

Storage

Original containers should be kept tightly sealed and stored at ambient temperatures (15°C to 30°C). If properly stored the products have the shelf-life indicated on the product label.
Partly used containers should always be sealed appropriately and used up as soon as possible.

Handling Precautions

Good workplace ventilation is to be ensured during processing. At the same time, the employer's liability insurance association's industrial hygiene safety regulations regarding the handling of reaction resins and their hardeners are to be observed. Please take heed of the appropriate safety data sheets.

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