

## Epoxy Laminating System

Temperature resistant, unfilled epoxy system with slow or fast reactivity

### Key Properties

- Low viscosity
- Excellent wetting properties
- Good cure at room temperature
- Temperature resistant up to 120°C

### Applications

- Laminated molds
- RTM or RIM tools
- For glass or carbon fiber laminates
- Resin Infusion

### Processing Properties

			EL-2203	EH-2952-1	EH-2953-1
Color	visual		Clear	Clear	Clear
Mix ratio		pbw	100	30	
			100		30
Density	ISO 1183	g/cm <sup>3</sup>	ca.1.16	ca.0.96	ca.0.95
Viscosity at 25 °C	DIN 53019-1	mPa·s	1000-1500	20-50	30-60

			EL-2203 EH-2952-1	EL-2203 EH-2953-1
Mix viscosity at 25 °C	DIN 53019-1	mPa·s	500-700	400-600
Pot life at 25 °C	500 ml	min	60	100
Max. layer thickness		mm	8	8
Demold time		h	16	18

### Cured / Mechanical Properties

Cure: 16h at RT + 14h at 120°C			EL-2203 EH-2952-1	EL-2203 EH-2953-1
Appearance	visual		Clear	Clear
Density	ISO 1183	g/cm <sup>3</sup>	ca.1.17	ca.1.1
Deflection temperature, HDT	ISO 75	°C	115-120	115-120
Glass Transition Temperature, Tg	DSC	°C	115-120	115-120
Flexural strength	ISO 178	MPa	110-120	115-125
Flexural modulus	ISO 178	MPa	2800-3300	2800-3300

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**Processing**

**The processing and material temperature should be between 20-25 °C.**

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.

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**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 120°C in steps and post cured for 14 hours at 120°C, then cooled down gradually. The curing time at room temperature, heating and cooling rate depend on the size and thickness of the parts.

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**Packaging**

RAKU-TOOL® EL-2203	5 kg / 20 kg
RAKU-TOOL® EH-2952-1	3 kg
RAKU-TOOL® EH-2953-1	3 kg

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**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.

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**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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