

## EL-2203 / EH-2952-1, EH-2953-1

### Epoxy Laminating Resin

Temperature resistant, unfilled, with fast or slow reactivity

#### Key Properties

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

#### Applications

- Laminating molds
- RTM tools
- RIM tools
- Production of laminate parts
- Resin infusion

#### Processing Properties

		Unit	EL-2203	EH-2952-1	EH-2953-1
Color	visual		colorless	yellowish	yellowish
Mix ratio		pbw	100	30	-
Mix ratio		pbw	100	-	30
Density	DIN 2811-1	g/cm <sup>3</sup>	ca. 1.16	ca. 0.96	ca. 0.95
Viscosity at 25 °C	DIN 53019-1	mPa·s	1,000 - 1,500	20 - 50	30 - 60

		Unit	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	50 - 60	70 - 80
Max. layer thickness		mm	8	8
Demold time		h	16	18

#### Cured / Mechanical Properties

Cure		Unit	EL-2203 / EH-2952-1 16h at RT + 14h at 120°C	EL-2203 / EH-2953-1 16h at RT + 14h at 120°C
Color		visual	yellowish	yellowish
Density	ISO 1183	g/cm <sup>3</sup>	ca. 1.17	ca. 1.10
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	2,800 - 3,300	2,800 - 3,300



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**Processing**

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

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 a 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 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.

**Packaging**

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