

Key Properties

- Room temperature curing
- No brittleness during room temperature cure overnight, easy to demold
- Good wetting properties
- Temperature resistant up to 130°C

Applications

- RTM
- Resin infusion

Processing Properties

		Unit	EI-2500	EH-2973
Color	visual		colorless	yellowish
Mix ratio		pbw	100	32
Mix ratio		pbv	100	40
Density	ISO 1183	g/cm ³	ca. 1.17	ca. 0.94
Viscosity at 25 °C	DIN 53019-1	mPa·s	800 - 1,300	50 - 80

		Unit	EI-2500 / EH-2973
Mix viscosity at 25 °C	DIN 53019-1	mPa·s	500 - 700
Pot life at 25 °C	100 ml	min	130 - 160
Pot life at 40 °C	100 ml	min	50 - 55
Pot life at 25 °C	500 ml	min	70 - 80
Max. layer thickness		mm	8
Demold time		h	24

Cured / Mechanical Properties

		Unit	EI-2500 / EH-2973 16h at RT + 8h at 80°C	EI-2500 / EH-2973 16h at RT + 8h at 120°C
Cure				
Color		visual	yellowish	yellowish
Density	ISO 1183	g/cm ³	ca. 1.10	ca. 1.10
Coefficient of thermal expansion	ISO 11359	10 ⁻⁶ K ⁻¹	70 - 80	60 - 70
Glass transition temperature, Tg	DSC	°C	108 - 113	130 - 135
Tensile strength	ISO 527	MPa	75 - 80	75 - 80
Flexural strength	ISO 178	MPa	125 - 130	125 - 130
Flexural modulus	ISO 178	MPa	2,700 - 3,200	2,700 - 3,200

Processing

The processing temperature and material temperature should be between 20-25°C.
 Mix the two components thoroughly in the ratio indicated.
 Degassing is recommended.
 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 8 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 EI-2500	200 kg, 20 kg
RAKU® TOOL EH-2973	23 kg, 4,5 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.

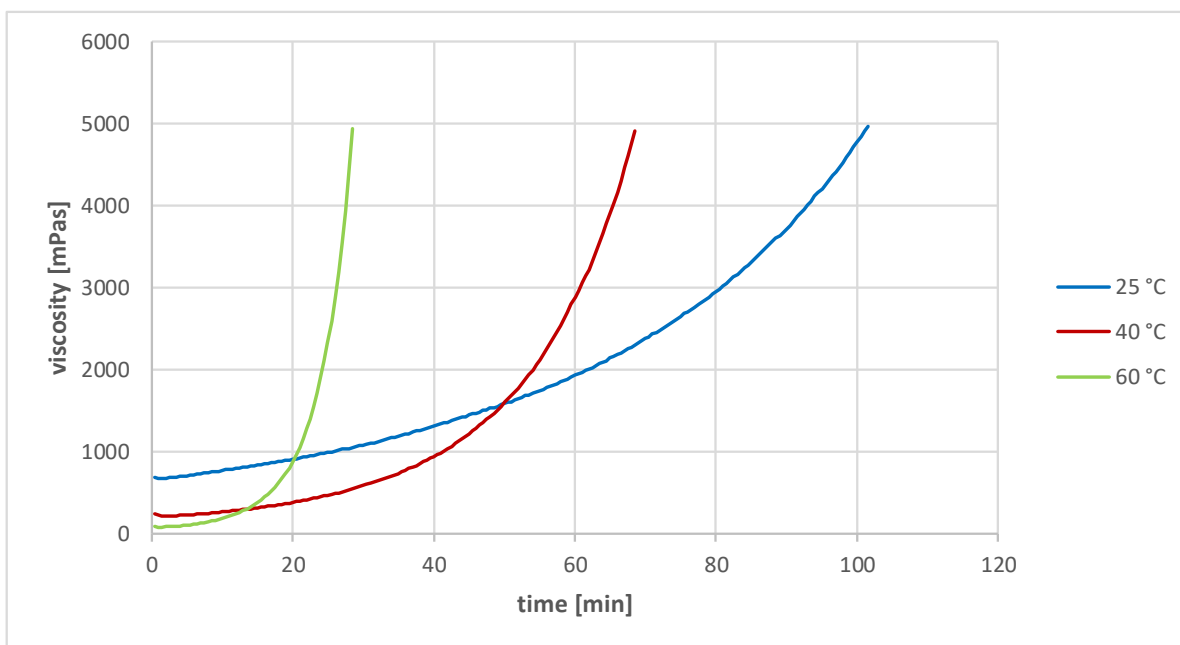
Handling precautions

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.

Additional Information

Increase in viscosity

			EI-2500 / EH-2973		
			25 °C	40 °C	60 °C
Initial viscosity	DIN 53019-1	mPa-s	500 – 700	200 - 250	80 - 100
Viscosity increase to 1500 mPa-s	DIN 53019-1	min	40 – 50	40 – 50	20 – 25
Viscosity increase to 3000 mPa-s	DIN 53019-1	min	75 – 85	55 – 65	25 – 30



Gel time

				EI-2500 / EH-2973
at 60 °C	hot plate	min		45 – 55
at 80 °C	hot plate	min		15 – 17
at 100 °C	hot plate	min		5 – 7
at 120 °C	hot plate	min		2 – 3

Glass transition temperature

			EI-2500 / EH-2973
7 days at 20-25 °C	DSC	°C	60 – 65
16h at 20-25 °C + 14h at 60 °C	DSC	°C	85 – 90
16h at 20-25 °C + 8h at 80 °C	DSC	°C	105 – 110
16h at 20-25 °C + 14h at 80 °C	DSC	°C	107 – 112
16h at 20-25 °C + 4h at 100 °C	DSC	°C	117 – 122
16h at 20-25 °C + 8h at 100 °C	DSC	°C	121 – 126
16h at 20-25 °C + 14h at 100 °C	DSC	°C	121 – 126
16h at 20-25 °C + 4h at 120 °C	DSC	°C	125 – 130
16h at 20-25 °C + 8h at 120 °C	DSC	°C	130 – 135
16h at 20-25 °C + 14h at 120 °C	DSC	°C	130 – 135

Water absorption

			EI-2500 / EH-2973	
Cure: 16h at 20-25 °C + post-cure			8h at 80 °C	8h at 120 °C
4 days at 23 °C	weight increase	%	0.52 – 0.57	0.50 – 0.55
10 days at 23 °C	weight increase	%	0.84 – 0.89	0.84 – 0.89
30 min at 100 °C	weight increase	%	0.52 – 0.55	0.43 – 0.48
60 min at 100 °C	weight increase	%	0.74 – 0.79	0.66 – 0.71