

EC-2404 / EH-2952-1

Epoxy Casting System

Aluminum filled with high heat resistance

Key Properties

- High temperature resistance after post-cure
- Room temperature gelation and demolding
- Easily workable
- Good chemical resistance

Applications

- Thermoforming tools
- Jigs
- Injection molds
- Foam molds

Processing Properties

		Unit	EC-2404	EH-2952-1
Color	visual		gray	yellowish
Mix ratio		pbw	100	11
Density	DIN 2811-1	g/cm ³	ca. 1.74	ca. 0.96
Viscosity at 25 °C	DIN 53019-1	mPa·s	20,000 - 30,000	20 - 50

		Unit	EC-2404 / EH-2952-1
Mix viscosity at 25 °C	DIN 53019-1	mPa·s	3,300 - 4,800
Pot life at 25 °C	1000 ml	min	100 - 120
Demold time		h	18
Max. layer thickness		mm	60

Cured / Mechanical Properties

		Unit	EC-2404 / EH-2952-1
Cure			16h at RT + 14h at 120°C
Color		visual	gray
Density	ISO 1183	g/cm ³	ca. 1.70
Hardness	ISO 868	Shore D	85 - 90
Coefficient of thermal expansion	ISO 11359	10 ⁻⁶ K ⁻¹	40 - 45
Deflection temperature, HDT	ISO 75	°C	115 - 120
Glass transition temperature, Tg	DSC	°C	115 - 120
Compressive strength	ISO 604	MPa	120 - 125
Compressive modulus	ISO 604	MPa	7,000 - 7,500
Flexural strength	ISO 178	MPa	100 - 105
Flexural modulus	ISO 178	MPa	7,300 - 7,800
Linear shrinkage*		mm/m	ca. 0.10

*measured on maximum layer thickness as stated above



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 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 EC-2404	5 kg
RAKU® TOOL EH-2952-1	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.