

RAKU-TOOL[®] EC-2400 / EH-2909, EH-2952

Epoxy Casting System

Abrasion resistant

PC - Rev.-Status: 01- 2009/06/25

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Key Properties

- Easy to pour
- Low sedimentation
- Good resistance to chemicals
- Reactivity can be adjusted
- Hard surface, abrasion resistant
- Good mechanical properties

Applications

- Foundry patterns
- Copy models
- Foam molds (face casting)

Processing Properties

| | | | EC-2400 | EH-2909 | EH-2952 |
|--------------------|----------|-------------------|---------------|---------|---------|
| Color | visual | | Blue | Clear | Clear |
| Mix ratio | | parts by weight | 100 | 6 | |
| Density | ISO 1183 | g/cm ³ | 2.0 | 0.87 | 0.95 |
| Viscosity at 25 °C | ISO 2555 | m Pa.s | 100000-200000 | 30-40 | 20-50 |

| | | | EC-2400 / EH-2909 | EC-2400 / EH-2952 |
|------------------------|----------|--------|-------------------|-------------------|
| Mix viscosity at 25 °C | ISO 2555 | m Pa.s | 7500-8500 | 12000-18000 |
| Pot life at 25 °C | 1000 ml | | 45 min | 3.5-4 h |
| Max. layer thickness | | mm | 30 | 60 |
| Demold time | | h | 12 | 18 |

Cured / Mechanical Properties**Cure:**

7 days at RT or 14h at 40°C

after initial hardening post cure in steps up to 120°C

| | | | EC-2400 / EH-2909 | EC-2400 / EH-2952 |
|----------------------------------|-----------|----------------------------------|-------------------|-------------------|
| Appearance | visual | | Blue | Blue |
| Density | ISO 1183 | g/cm ³ | 1.9 | 1.9 |
| Shore hardness D | ISO 868 | | 85-90 | 85-90 |
| Coefficient of thermal expansion | ISO 11359 | 10 ⁻⁶ K ⁻¹ | 30-40 | 30-40 |
| Deflection temperature, HDT | ISO 75 | °C | 65-70 | 115-120 |
| Glass Transition Temperature, Tg | DSC | °C | 63-68 | 115-120 |
| Compressive strength | ISO 604 | MPa | 135-140 | 165-170 |
| Compressive modulus | ISO 604 | MPa | 8300-8800 | 8800-9300 |
| Flexural strength | ISO 178 | MPa | 93-98 | 115-120 |
| Flexural modulus | ISO 178 | MPa | 8500-900 | 9000-9500 |
| Linear shrinkage* | | mm / m | 0.1 | 0.1 |

*measured on maximum layer thickness as stated above

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Processing

Mix the two components thoroughly in the ratio indicated.

Degassing and /or post-curing will improve final properties.

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

Packaging

| | |
|--------------------|---------------------------|
| RAKU-TOOL® EC-2400 | 5 kg / 15 kg |
| RAKU-TOOL® EH-2909 | 6x 0.300 kg / 6x 0.900 kg |
| RAKU-TOOL® EH-2952 | 4.5 kg / 22.5 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.
