

EC-2401 / EH-2904-1, EH-2905-1, EH-2906-1

Epoxy Casting System

With mineral filler in variable reactivity

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MAEI - Rev.Status: 03-2025/11/18 - GB

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Key Properties

- Universally applicable
- Low sedimentation
- Excellent flow properties
- Adjustable reactivity
- Good reproduction of detail
- Excellent workability

Applications

- Foundry patterns
- Copy models
- Direct casting (negatives)
- Jigs and fixtures
- Working models for the ceramics industry
- Galvano bath models

Processing Properties

		Unit	EC-2401	EH-2904-1	EH-2905-1	EH-2906-1
Color	visual		beige	yellowish	yellowish	yellowish
Mix ratio		pbw	100	20	-	-
Mix ratio		pbw	100	-	20	-
Mix ratio		pbw	100	-	-	20
Density	DIN 2811-1	g/cm³	ca. 1.75	ca. 1.00	ca. 1.01	ca. 1.01
Viscosity at 25 °C	DIN 53019-1	mPa·s	90,000 - 120,000	90 - 130	80 - 120	40 - 80

		Unit	EC-2401 / EH-2904-1	EC-2401 / EH-2905-1	EC-2401 / EH-2906-1
Mix viscosity at 25 °C	DIN 53019-1	mPa·s	2,800 - 3,800	2,500 - 3,500	2,000 - 2,500
Pot life at 25 °C	1000 ml	min	40 - 50	70 - 80	170 - 200
Demold time		h	12	16	18
Max. layer thickness		mm	10	20	80

Cured / Mechanical Properties

		Unit	EC-2401 / EH-2904-1 7 days at RT or 14h at 40°C	EC-2401 / EH-2905-1 7 days at RT or 14h at 40°C	EC-2401 / EH-2906-1 7 days at RT or 14h at 40°C
Cure					
Color		visual	beige	beige	beige
Density	ISO 1183	g/cm³	ca. 1.60	ca. 1.60	ca. 1.60
Hardness	ISO 868	Shore D	85 - 90	85 - 90	85 - 90
Coefficient of thermal expansion	ISO 11359	10 ⁻⁶ K ⁻¹	50 - 55	50 - 55	50 - 55
Deflection temperature, HDT	ISO 75	°C	53 - 58	43 - 48	45 - 50
Glass transition temperature, Tg	DSC	°C	53 - 58	45 - 50	48 - 53
Compressive strength	ISO 604	MPa	108 - 113	103 - 108	113 - 118
Compressive modulus	ISO 604	MPa	6,300 - 6,800	5,800 - 6,300	6,300 - 6,800
Flexural strength	ISO 178	MPa	83 - 88	78 - 83	88 - 93
Flexural modulus	ISO 178	MPa	6,000 - 6,500	5,800 - 6,300	6,300 - 6,800
Linear shrinkage*		mm/m	ca. 0.20	ca. 1.00	ca. 0.40

*measured on maximum layer thickness as stated above



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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.

Packaging

RAKU® TOOL EC-2401	10 kg
RAKU® TOOL EH-2904-1	2 kg
RAKU® TOOL EH-2905-1	2 kg
RAKU® TOOL EH-2906-1	2 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.