

RAKU® TOOL EC-2402 / EH-2904-1, EH-2905-1, EH-2906-1



Epoxy Casting System

With metal fillers, variable reactivity

Key Properties

- Reduced hazard rating
- Universally applicable
- Low sedimentation
- Good mechanical properties
- Easy to pour
- Workable, hard surface
- Reactivity can be adjusted by using different hardeners

Applications

- Foundry patterns
- Copy models
- Metal forming
- General modeling

Processing Properties

			EC-2402	EH-2904-1	EH-2905-1	EH-2906-1
Color	visual		Black	Yellowish	Yellowish	Yellowish
Mix ratio		parts by weight	100	15		
			100		15	
			100			15
Density	ASTM D-792	lb/ft ³ (g/cm ³)	ca. 177 (2.84)	ca. 62 (1.00)	ca. 63 (1.01)	ca. 63 (1.01)
Viscosity at 77°F (25°C)	ASTM D-2393	cP	100,000- 200,000	90-130	80-120	40-80

			EC-2402 EH-2904-1	EC-2402 EH-2905-1	EC-2402 EH-2906-1
Mix viscosity at 77°F (25°C)	ASTM D-2393	cP	4,000-5,000	4,000-5,000	3,000-4,000
Pot life at 77°F (25°C)	4.8 lbs	min	35-45	70-80	200-230
Max. layer thickness		in	0.4	0.8	3.2
Demold time		h	12	16	18



Cured / Mechanical Properties

Cure: 7 days at RT or 14h at 104°F (40°C)

			EC-2402 EH-2904-1	EC-2402 EH-2905-1	EC-2402 EH-2906-1
Aspect	visual		Black	Black	Black
Density	ASTM D-792	lb/ft ³ (g/cm ³)	ca. 150 (2.4)	ca. 150 (2.4)	ca. 150 (2.4)
Shore hardness D	ASTM D-2240		85-90	85-90	85-90
Coefficient of thermal expansion	ASTM D-3386	10 ⁻⁶ F ⁻¹ (10 ⁻⁶ K ⁻¹)	25 – 28 (45-50)	25 – 28 (45-50)	25 – 28 (45-50)
Deflection temperature, HDT	ASTM D-648	°F (°C)	118-129 (48-54)	109-118 (43-48)	118-127 (48-53)
Glass Transition Temperature, Tg	DSC	°F (°C)	131-140 (55-60)	122-131 (50-55)	113-122 (45-50)
Compressive strength	ASTM D-695	psi	14,500-15,200	14,200-14,900	16,000-16,800
Compressive modulus	ASTM D-695	psi	841,000- 914,000	841,000- 914,000	914,000-986,000
Flexural strength	ASTM D-790	psi	12,300-13,100	12,800-13,500	14,200-14,900
Flexural modulus	ASTM D-790	psi	870,000- 943,000	841,000- 914,000	870,000-943,000
Linear shrinkage*	ASTM D-2566	in / in	0.0002	0.0004	0.0005

*Measured on maximum layer thickness as stated above

Processing

The processing and material temperature should be between 68-77°F (20-25°C).

Mix the two components thoroughly in the ratio indicated.

Degassing is recommended.

Packaging

RAKU® TOOL EC-2402	29.7 lbs (13.5 kg)
RAKU® TOOL EH-2904-1	4.4 lbs / 55 lbs (2 kg / 25 kg)
RAKU® TOOL EH-2905-1	4.4 lbs (2 kg)
RAKU® TOOL EH-2906-1	4.4 lbs / 55 lbs (2 kg / 25 kg)

Storage

Original containers should be kept tightly sealed and stored at ambient temperatures 59-86°F (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.
