

# RAKU-TOOL<sup>®</sup> PR-3605 (Polyol) / PH-3905 (Isocyanate)

## Prototyping System

### Fast curing, two component Polyurethane

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**Key Properties**

- High temperature resistance
- Simulates ABS / PP

**Applications**

- Rapid Prototyping
- Short run production
- Functional prototype parts

**Processing Properties**

			PR-3605	PH-3905
Color	visual		Black	Brown
Mix ratio		pb weight	100	80
		pb volume		
Viscosity at 25 °C	ISO 2555	m Pa.s		
			PR-3605 PH-3905	
Mix viscosity at 25 °C	ISO 2555	m Pa.s		
Pot life at 25 °C		sec	60	
Layer thickness		mm	5	
Demold time (RT)		min	10-20	

**Cured / Mechanical Properties****Cure: in steps up to 120°C**

			PR-3605 PH-3905
Appearance	visual		Black
Density	ISO 1183	g/cm <sup>3</sup>	1.15-1.20
Shore hardness D	ISO 868		80
Deflection temperature, HDT	ISO 75	°C	110-120
Impact strength (Charpy)	ISO 179	kJ/m <sup>2</sup>	40-45
Compressive strength	ISO 604	MPa	
Tensile strength	ISO 527	MPa	40-50
Elongation at break	ISO 527	%	15-25
Flexural strength	ISO 178	MPa	65-75
Flexural modulus	ISO 178	MPa	1300-1700
Linear shrinkage		mm / m	

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### Processing

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

**Hand mixing or manual processing of the material is not recommended.** To process the material it is recommended to use a two component low pressure casting machine with a static dynamic mixer. The material must be cast into the mold during the pot life time but not too fast to avoid any air entrapment.

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### Packaging

RAKU-TOOL <sup>®</sup> PR-3605	5 kg, 25 kg, 200 kg, 1000 kg
RAKU-TOOL <sup>®</sup> PH-3905	4 kg, 20 kg, 250 kg, 1150 kg

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### 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.

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### 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.

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*Supplied by*

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