RAKU® TOOL

PR-3600 / PH-3900

Prototyping System

Fast curing, two component polyurethane system

Key Properties

- Simulates rubber
- Short demold time
- Good elastic memory

Applications

- Functional prototype parts
- Pilot production / short run production
- Rapid prototyping

Processing Properties

		Unit	PR-3600	PH-3900
Color	visual		black	brown
Mix ratio		pbw	100	40
Mix ratio		pbv	100	34
Density	ISO 1183	g/cm³	1.04	1.22
Viscosity at 25 °C	DIN 53019-1	mPa·s	1,000 - 1,500	80 - 120

		Unit	PR-3600 / PH-3900
Pot life at 25 °C	100 ml	sec	80 - 90
Max. layer thickness		mm	4
Demold time		min	15 - 25

Cured / Mechanical Properties

Cure		Unit	PR-3600 / PH-3900 7 days at RT or 14h at 40°C
Color		visual	black
Density	ISO 1183	g/cm³	ca. 1.14
Hardness	ISO 868	Shore A	80 - 85
Tensile strength	ISO 527	MPa	8 - 10
Elongation at break	ISO 527	%	100 - 150
Tear strength	DIN 53515	N/mm	9 - 10
Abrasion	Taber	mm³/100R	30 - 35

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Processing

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

The A component needs to be stirred well before use as some fillers might be prone to sedimentation.

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. The recommended material temperature must be observed. Too high or low a material temperature will change the viscosity (high/low) and have a direct influence on the mixing ratio set up on the machine. Changes in the mixing ratio will result in faults in the finished part.

Packaging	
RAKU® TOOL PR-3600	25 kg
RAKU® TOOL PH-3900	25 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.

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