

RAKU-TOOL[®] PF-3700-1 (Polyol) / PH-3970-1 (Isocyanate)

Fast Cast System

Two component, unfilled polyurethane,
 can be filled with AC-9004

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Key Properties

- Unfilled, very low viscosity
- High fill rate possible
- Good cure
- Very high strength
- Very good temperature resistance

Applications

- Foundry patterns, core boxes, negatives, pattern plates
- Checking casts
- Replicas
- Vacuum forming molds
- Jigs

Processing Properties

			PF-3700-1	PH-3970-1	AC-9004
Color	visual		Milky	Light yellow	White
Mix ratio		pb weight	100	100	300
		pb volume	100	86	-
Density	ISO 1183	g/cm ³	0.95	1.10	-
Viscosity at 25 °C	ISO 2555	m Pa.s	80-90	70-80	-

			PF-3700-1 / PH-3970-1	PF-3700-1/PH-3970-1 AC-9004
Pot life at 25 °C	1000 ml	min	3-4	4-5
Max. layer thickness		mm	10	60
Demold time (RT)		h	0.5-1	1-2

Cured / Mechanical Properties

			PF-3700-1 / PH-3970-1	PF-3700-1/PH-3970-1 AC-9004
Cure: 7 days at RT or 14h at 40°C				
Appearance	visual		Beige	Beige
Density	ISO 1183	g/cm ³	1-1.1	1.6-1.7
Shore Hardness D	ISO 868		70-75	75-80
Deflection temperature, HDT	ISO 75	°C	50-60	60-70
Compressive strength	ISO 604	MPa	40-50	50-60
Compressive modulus	ISO 604	MPa	1000-1100	3400-3500
Flexural strength	ISO 178	MPa	30-40	40-50
Linear shrinkage		mm / m	-	1.5

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Processing

The A component needs to be stirred well before use as some fillers might be prone to sedimentation. The fillers should first be mixed into the individual A and B components in a way so that the two components have about the same viscosity. This allows for easier and better mixing of the two components afterwards. With a bit of practice it is possible to mix small quantities of unfilled A and B and then add the filler without the pot life being too short for the casting process.

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

Packaging

RAKU-TOOL® PF-3700-1	6x1 kg, 4.5 kg, 20 kg, 200 kg
RAKU-TOOL® PH-3970-1	6x1 kg, 4.5 kg, 20 kg, 200 kg
RAKU-TOOL® AC-9004	20 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.
