

RAKU® TOOL

CP-6100-1 Resin / CP-6100-1 Hardener



Close Contour Paste

Machine dispensed epoxy paste

Key Properties

- Very fine and homogeneous surface
- Easy to machine, low dust
- High surface hardness and low CTE
- Layer thickness 0.9 inches (25 mm) without slump on vertical surfaces

Applications

- Jigs and Checking fixtures
- Data control models
- Tools
- Molds for direct tooling

Processing Properties

			CP-6100-1 Resin	CP-6100-1 Hardener
Color	visual		Light blue	Beige
Mix ratio		parts by weight	100	100
		parts by volume	100	100
Density	ASTM D-792	lb/ft ³ (g/cm ³)	ca. 81 (ca. 1.3)	ca. 75 (ca. 1.2)

			CP-6100-1 Resin / Hardener	
Pot life at 77°F (25°C)	2.20 lbs (1000 ml)	min	50 - 60	
Layer thickness		in (mm)	0.9 (25)	
Machinable after at 77°F (25°C)		h	14	

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Cured / Mechanical Properties

			CP-6100-1 Resin / Hardener	
			Cure: 7 days at RT or 14h at 104°F (40°C)	Cure: 14h at 176°F (80°C)
Aspect	visual		Light Blue	Light blue
Density	ASTM D-792	lb/ft ³ (g/cm ³)	ca.75 (ca. 1.2)	ca. 75 (ca. 1.2)
Shore hardness D	ASTM D-2240		80 - 85	80 - 85
Coefficient of thermal expansion	ASTM D-3386	10 ⁻⁶ F ⁻¹ (10 ⁻⁶ K ⁻¹)	28 - 31 (50 - 55)	28 - 31 (50 - 55)
Deflection temperature, HDT	ASTM D-648	°F (°C)	131 - 140 (55 - 60)	185 - 194 (85 - 90)
Glass Transition Temperature, Tg	DSC	°F (°C)	140 - 149 (60 - 65)	176 - 185 (80 - 85)
Compressive strength	ASTM D-695	psi (MPa)	11,600 – 13,100 (80 – 90)	13,800 – 15,200 (95 – 105)
Compressive modulus	ASTM D-695	psi (MPa)	653,000 – 725,000 (4,500 - 5,000)	696,000 – 769,000 (4,800 - 5,300)
Flexural strength	ASTM D-790	psi (MPa)	7,250 – 7,980 (50 – 55)	7,980 – 8,700 (55 – 60)
Flexural modulus	ASTM D-790	psi (MPa)	653,000 – 725,000 (4,500 - 5,000)	725,000 – 798,000 (5,000 - 5,500)
Linear shrinkage*	ASTM D-2566	in / in (mm/m)	-	-

*Measured on 20 mm layer thickness after cure 7 days at RT.

Processing

The processing and material temperature should be between 68-77 °F (20-25 °C), never below 64.4 °F (18 °C).

Set up parameters for dispensing machine are available on request.

Check the mixing ratio before attaching the mixer head.

Please ensure the constant supply of compressed air.

The longer the hose the higher the material pressure.

Avoid applying over 0.9 inches (25 mm) at once, for thicker layers it is recommended to apply the 2nd layer after the first one has gelled.

Packaging

RAKU® TOOL CP-6100-1 Resin	440 pounds in 52.8 gallon drum (200 kg in 200L drum)
RAKU® TOOL CP-6100-1 Hardener	440 pounds in 52.8 gallon drum (200 kg in 200L drum)



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.
