

Cubic Ink® Rigid 300 VP High Resolution

Rigid material with outstanding printing resolution

Liquid Properties	Method	Value ¹	Unit
Viscosity (25 °C)	DIN EN ISO 3219	170	mPa·s
Density	DIN EN ISO 15212-1	1.05	g/mL
Critical Energy (E _c)	405 nm / 385 nm	4.3 / 5.3	mJ/cm ²
Depth of Penetration (D _p)	405 nm / 385 nm	0.08 / 0.10	mm
Tensile Properties			
Ultimate Tensile Strength	DIN EN ISO 527-5A ²	37	MPa
Tensile Modulus	DIN EN ISO 527-5A ²	1900	MPa
Elongation at Break	DIN EN ISO 527-5A ²	8.0	%
Flexural Properties			
Flexural Strength	DIN EN ISO 178 ²	57	MPa
Flexural Modulus	DIN EN ISO 178 ²	1800	MPa
Deflection at Fracture	DIN EN ISO 178 ²	9.4	%
Impact Properties			
Izod notched	DIN EN ISO 180	17	J/m
Hardness			
Shore Hardness	DIN EN ISO 7619	80	D
Thermomechanical Properties			
HDT B	DIN EN ISO 75	52	°C
Other Properties			
Water Uptake, 24 h, 23 °C	Internal	0.3	%
Performance after Water Uptake, 24 h, 23 °C ³	Internal	2	%
Color, Storage, Compatibility			
Natural color is translucent yellow. Additional colors available on request.			
For best performance, use within 12 months of manufacturing date. Store at room temperature and protect from light. Stir prior to use.			
Cubic Ink Rigid 300 VP High Resolution is compatible with Cubic Ink Cleaner 400.			
¹ Properties may vary with post-processing – 2 x 30 min UV post-cure via <i>Prusa CW1s</i> (LED 405 nm). All material properties can vary with color, printer, print settings, object orientation, part geometry, post-processing and age of sample. Properties in TDS are measured on yellow resin. ² 5 mm/min; ³ Relative loss of tensile strength compared to reference, DIN EN ISO 527-5A, 5 mm/min.			

Chemical Resistance	Mass Gain [%] ¹
Water	< 0.1
Acetic Acid (5%)	< 0.1
Hydrochloric Acid (1%)	< 0.1
Nitric Acid (5%)	< 0.1
Sodium Hypochlorite (10%)	< 0.1
Hydrogen Peroxide (3%)	< 0.1
Sodium Hydroxide (1%)	< 0.1
Isopropyl Alcohol	0.5
Ethanol	2.6
Butyl Glycol Acetate	0.4
Super Gasoline	2.0
Acetone	7.1
Methyl Ethyl Ketone	7.2

¹Percental weight gained after 24 h submersion of printed and post-cured (2 x 30 min UV post-cure via *Prusa CW1s*, LED, 405 nm) 1 x 1 x 1 cm³ cubes.

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