ALTANA

Cubic Ink® – High Performance 1-401

High temperature form-stable material for final part production

Tensile Properties (DIN EN ISO 527)	Value[1]	Unit
Ultimate Tensile Strength	86	MPa
Tensile Modulus	3.4	GPa
Elongation at Break	3.5	%
Flexural Properties (DIN EN ISO 14125)		
Flexural Strength	111	MPa
Flexural Modulus	2.8	GPa
Impact Properties		
Charpy un-notched (DIN EN ISO 179–1)	29	kJ/m^2
IZOD un-notched (DIN EN ISO 180)	264	J/m
Thermal Properties		
HDT A (DIN EN ISO 75)	124	°C
HDT B (DIN EN ISO 75)	193	°C
Coefficient of thermal exp. (-40 °C, 115 °C)	78	x 10^{-6} K^{-1}
Coefficient of thermal exp. (115 °C, 200 °C)	231	x 10^{-6} K^{-1}
Specific heat capacity, 20 °C	1,31	J/g K
Electrical Properties		
Specific volume resistance (500 V)	6,4	x 10^{14} Ohm x cm
Specific volume resistance (500 V after 7 days in water at 22 °C)	9,3	x 10^{14} Ohm x cm
Specific volume resistance (500 V at 42 °C)	9,48	x 10^{14} Ohm x cm
Specific volume resistance (500 V at 91 °C)	6,52	x 10^{14} Ohm x cm
Specific volume resistance (500 V at 180 °C)	1,54	x 10^{12} Ohm x cm
Comparative tracking index (CTI)	100–125	—
Dielectrical strength (RT)	27	kV/mm
Withstand voltage (RT)	15	kV

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Hardness Properties (DIN ISO 7619–1)

Shore D hardness	83

Print Appearance / Color

Available in cyan, magenta, yellow, black, white and grey. More colors on request.

Compatibility

Compatible with the Cubic Ink material portfolio.

Storage

6–9 month when stored in the closed container at 6 °C in the dark.

[1] Properties without any post-processing. Measurement of samples 3 days after printing and storage at 23 °C. All material properties can vary with printer, print settings, object orientation, part geometry and age of sample.