



MATERIAL DATASHEET

STEREOLITHOGRAPHY

3D PRINTING WITH PLASTICS FOR MAXIMUM DETAIL RENDITION

The advantages of objects made of epoxy resins include a high level of detail and smooth surfaces. One of the production processes used for such objects is stereolithography.

MATERIAL		RS High Temp	RS Clear
			
Properties*	Unit		
Color	–	amber	transparent
Tensile strength	MPa	58,3	65
Tensile Modulus	MPa	2750	2800
Flexural Modulus	MPa	2620	2200
Tear Strength	kN/m	–	–
Elongation at Failure	%	3,3	6,2
Shore A Hardness	–	–	–
Compression Set	%	–	–
Notched impact strength	J/m	18,2	25
Vicat Softening Point	°C	–	–
Thermal Expansion (0-150 °C)	µm/m/°C	79,6	44
Heat deflection temperature at 0.45 MPa	°C	238*	73,1
Heat deflection temperature at 1.82 MPa	°C	101*	58,4

* after thermal treatment


** measured at 23 °C / 70°C for 22 hrs

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MATERIAL				VisiJet Tough
				
	Properties*	Condition	Unit	
General properties	Color	–	–	grey
	Density, liquid	at 25°C	g/cm ³	1,13
	Density, hardened	at 25°C	g/cm ³	1,19
Hardened material	Shore D hardness	–	–	86
	Breaking strength	ASTM D 790	MPa	62
	Tensile strength	ASTM D 638	MPa	41
	Elastic modulus	ASTM D 638	MPa	1.890
	Elongation at break	ASTM D 638	%	18
	Bending strength	ASTM D 790	MPa	1.850
	Flexural modulus	ASTM D 790	MPa	1.520 – 2.070
	Notched impact strength	ASTM D 256	J/m	44
	Heat deflection temperature at 0.45 MPa	ASTM D 648	°C	62
	Heat deflection temperature at 1.82 MPa	ASTM D 648	°C	54

* after thermal treatment