
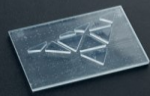



### 3D PRINTING WITH PLASTICS FOR MAXIMUM DETAIL RENDITION

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	RS Elastic
				
Properties*	Unit			
Color	–	amber	transparent	milky white
Tensile strength	MPa	58,3	65	3,23
Tensile Modulus	MPa	2750	2800	1,18
Flexural Modulus	MPa	2620	2200	–
Tear Strength	kN/m	–	–	19,1
Elongation at Failure	%	3,3	6,2	160
Shore A Hardness	–	–	–	50
Compression Set	%	–	–	2/9**
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

**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				VisiJet Tough
				
	Properties*	Condition	Unit	
General properties	Color	–	–	grey
	Density, liquid	at 25°C	g/cm <sup>3</sup>	1,13
	Density, hardened	at 25°C	g/cm <sup>3</sup>	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