

## Polypropylene [PP]

SLS MATERIAL

General Properties	Test Method	Typical Values
Bulk Density / kg/m <sup>3</sup>	DIN EN ISO 60	<b>330</b>
Printed Part Density / kg/m <sup>3</sup>	ISO 61	<b>1120</b>
Mean Particle Size d <sub>50</sub> / μm	Laser Diffraction	<b>60-70</b>
Melting Temperature / °C	ISO 11357 (10K/min)	<b>140</b>
Crystallisation Temperature / °C	ISO 11357 (10K/min)	<b>97</b>
Melt Volume Flow Rate / cm <sup>3</sup> /10min	ISO 1133 (230 °C, 2.16 kg)	<b>11</b>

Thermal Properties	Test Method	Typical Values
HDT/A (1.8 MPa) / °C	ISO 75-2	<b>57</b>
HDT/B (0.45 MPa) / °C	ISO 75-2	<b>91</b>
Vicat/A (10 N) / °C	ISO 306	<b>127</b>
Vicat/B (50 N) / °C	ISO 306	<b>82</b>

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Mechanical Properties	Test Method	Typical Values x direction	Typical Values z direction
Tensile Strength / MPa	ISO527-2	29	24
Tensile Modulus / MPa	ISO527-2	1200	1100
Tensile Elongation at break / %	ISO527-2	46	7
Flexural Modulus / MPa	DIN EN ISO 178	1300	1200
Charpy Impact Strength (notched) / kJ/m <sup>2</sup>	ISO 179-1	4.0	3.0
Charpy Impact Strength (unnotched) / kJ/m <sup>2</sup>	ISO 179-1	30.5	23.2
Izod Impact Strength (notched) / kJ/m <sup>2</sup>	ISO 180	4.0	3.0
Izod Impact Strength (unnotched) / kJ/m <sup>2</sup>	ISO 180	24.5	18.9

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