

## HiPS natur + color masterbatch

- Temperature print: 220-250 °C for 2,90 mm filament / 200-230 °C for 1,75 mm filament
- Temperature pad: about 70-120 °C



Material data sheet for HiPS natur:

<b>Physical</b>	<b>Nominal Value (English)</b>	<b>Nominal Value (SI)</b>	<b>Test Method</b>
Density	1.05 g/cm <sup>3</sup>	1.05 g/cm <sup>3</sup>	ISO 1183
Apparent Density	0.60 g/cm <sup>3</sup>	0.60 g/cm <sup>3</sup>	ISO 60
Melt Mass-Flow Rate (MFR) (200°C/5.0 kg)	12 g/10 min	12 g/10 min	ISO 1133
<b>Mechanical</b>	<b>Nominal Value (English)</b>	<b>Nominal Value (SI)</b>	<b>Test Method</b>
Tensile Stress			ISO 527-2/5
Yield	2320 psi	16.0 MPa	
Break	2320 psi	16.0 MPa	
Tensile Strain			ISO 527-2/5
Yield	1.5 %	1.5 %	
Break	50 %	50 %	
Flexural Modulus	290000 psi	2000 MPa	ISO 178
Flexural Strength	7250 psi	50.0 MPa	ISO 178
<b>Impact</b>	<b>Nominal Value (English)</b>	<b>Nominal Value (SI)</b>	<b>Test Method</b>
Charpy Notched Impact Strength			ISO 179/2
Compression Molded	3.3 ft-lb/in <sup>2</sup>	7.0 kJ/m <sup>2</sup>	
Notched Izod Impact			
Compression Molded	1.69 ft-lb/in	90.0 J/m	ASTM D256
Injection Molded	1.31 ft-lb/in	70.0 J/m	ASTM D256
--	13.4 ft-lb/in <sup>2</sup>	28.1 kJ/m <sup>2</sup>	ISO 180
<b>Hardness</b>	<b>Nominal Value (English)</b>	<b>Nominal Value (SI)</b>	<b>Test Method</b>
Rockwell Hardness (R-Scale)	55	55	ISO 2039-2
Ball Indentation Hardness	10200 psi	70.0 MPa	ISO 2039-1
<b>Thermal</b>	<b>Nominal Value (English)</b>	<b>Nominal Value (SI)</b>	<b>Test Method</b>
Heat Deflection Temperature			
66 psi (0.45 MPa), Annealed	190 °F	88.0 °C	ISO 75-2/B
264 psi (1.8 MPa), Unannealed	163 °F	73.0 °C	ISO 75-2/A
264 psi (1.8 MPa), Annealed	183 °F	84.0 °C	ISO 75-2/A
Vicat Softening Temperature			
--	205 °F	96.0 °C	ISO 306/A120
--	189 °F	87.0 °C	ISO 306/B50