

## Sappi Symbio PP20

### Natural fibre reinforced polypropylene

#### Product description

Sappi Symbio PP20 is a cellulose fibre reinforced thermoplastic composite. It consists of virgin polypropylene and specifically selected and treated cellulose. Due to its good balance between density, stiffness and impact resistance it can be used for a variety of applications.

#### Product Characteristics

<b>Status</b>	Commercial
<b>Processing methods</b>	Injection Molding
<b>Availability</b>	Global
<b>Features</b>	<ul style="list-style-type: none"> <li>• low density</li> <li>• soft and warm touch</li> <li>• good aesthetics</li> <li>• renewable content</li> <li>• good processability</li> <li>• low water absorption</li> <li>• good acoustics/damping</li> <li>• very good heat resistance</li> <li>• excellent scratch resistance</li> </ul>
<b>Applications</b>	Automotive interior, Consumer electronics, Furniture, Appliances
<b>Sustainability</b>	The fibres come from sustainable and controlled sources, It can be recycled or burned for energy.
<b>Appearance</b>	Off-white granules

#### Typical Properties

Property	Test method	Value	Unit
Fibre content		20	Weight %
Density	ISO 1183	0.98	g/cm <sup>3</sup>
MFI, 190°C/5kg	ISO 1133	18	g/10min
Tensile modulus	ISO 527/5A, (1mm/min)	2750	MPa
Tensile strength	ISO 527/5A, (50mm/min)	47	MPa
Flexural modulus //	ASTM D790, 23°C	2950	MPa
Flexural strength //	ASTM D790, 23°C	75	MPa
Notched impact strength (23°C)	ISO 180	3.9	kJ/m <sup>2</sup>
Unnotched impact strength (23°C)	ISO 180	24.8	kJ/m <sup>2</sup>
HDT- A at 1.80 MPa	ISO 75	85	°C
HDT- B at 0.45 MPa	ISO 75	141	°C

*\*Sappi Symbio PP20 is also available in black: Sappi Symbio PP20B*

<b>Pretreatment</b>	It is recommended to dry Sappi Symbio PP20 at 105°C for 3 hours prior to use.
<b>Process conditions</b>	<p>To prevent coloring and degradation of the material dwell time should be as short as possible and maximum processing temperatures should not exceed 200°C. A higher thermal load may cause degradation or smoldering.</p> <p>Temperature from nozzle      190/185/175/165°C</p> <p>Mold temperature                50-80°C</p>
<b>Storage</b>	It is recommended to store Sappi Symbio PP20 in closed packages under dry conditions. Air humidity can increase the moisture content.
<b>Disclaimer</b>	<p>All information is based on our current knowledge and experience.</p> <p>Injection molding guidelines are indicative.</p> <p>This information cannot be used as guarantee or identification of quality.</p>