

Sappi Symbio PP40

Natural fibre reinforced polypropylene

Product description

Sappi Symbio PP40 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

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

Typical Properties

Property	Test method	Value	Unit
Fibre content		40	Weight %
Density	ISO 1183	1.06	g/cm ³
MFI, 190°C/5kg	ISO 1133	2.7	g/10min
Tensile modulus	ISO 527/5A, (1mm/min)	4740	MPa
Tensile strength	ISO 527/5A, (50mm/min)	66	MPa
Flexural modulus //	ASTM D790, 23°C	4670	MPa
Flexural strength //	ASTM D790, 23°C	101	MPa
Notched impact strength (23°C)	ISO 180	4.5	kJ/m ²
Unnotched impact strength (23°C)	ISO 180	26.0	kJ/m ²
HDT- A at 1.80 MPa	ISO 75	127	°C
HDT- B at 0.45 MPa	ISO 75	155	°C

**Sappi Symbio PP40 is also available in black: Sappi Symbio PP40B*

Pretreatment	It is recommended to dry Sappi Symbio PP40 at 105°C for 3 hours prior to use.
Process conditions	<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>
Storage	It is recommended to store Sappi Symbio PP40 in closed packages under dry conditions. Air humidity can increase the moisture content.
Disclaimer	<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>