

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 sound/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	0.6	g/10min
Tensile modulus	ISO 527-2/1A	4620	MPa
Tensile strength	ISO 527-2/1A	64	MPa
Flexural modulus //	ISO 178, 23°C	4790	MPa
Flexural strength //	ISO 178, 23°C	94	MPa
Notched impact strength (23°C)	ISO 179-1	5.5	kJ/m ²
Unnotched impact strength (23°C)	ISO 179-1	34	kJ/m ²
HDT- A at 1.80 MPa	ISO 75	127	°C
HDT- B at 0.45 MPa	ISO 75	155	°C

Pretreatment It is recommended to dry Sappi Symbio PP40 at 115°C for 3 hours prior to use.

Injection molding guidelines

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.

Temperature from nozzle 190/185/175/165°C
Mold temperature 50-80°C

Storage and handling

Sappi Symbio grades should be stored in a way to prevent direct exposure to sunlight and/or heat. The storage area should also be dry and preferably the temperature should not exceed 50°C. Sappi Symbio does not give warranty to bad storage conditions which may lead to quality deterioration such as moisture absorption, color change, bad smell or inadequate product performance.

Recycling and end life

The product is suitable for recycling methods such as shredding, re-grinding and cleaning. A separate Safety Data Sheet is available for Sappi Symbio material products, giving more detail information on health hazards and handling.

For more information, please contact the Sappi Symbio Sales Team.

Disclaimer

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