PRODUCT DATA SHEET

05.11.2025 Ed.3

Polypropylene

PP1121

Description

PP1121 is a high impact polypropylene intended for buffer tubes for fiber-optic cable. This grade is characterized by combination of good stiffness, good creep resistance and very high impact strength even at low temperatures. This grade features high thermal stability, very low shrinkage and very good processability. As all polypropylenes, this grade shows excellent stress-cracking and chemical resistances.

Typical characteristics

PP1121 can be described with following typical characteristics:

Good stiffness

Good impact strength

Good stress crack resistance

Very good processability

High melt stability

Very low post extrusion shrinkage

Applications

PP1121 is intended for following applications:

High-speed manufacture of dry and wet buffer tubes for loose tube fiber optical cables

Physical properties

Property	Typical value *	Unit	Test method
Melt flow rate (230 °C/2.16 kg)	3.5	g/10min	ISO 1133-1
Flexural modulus	1250	MPa	ISO 178
OIT 210°C	≥35	min	ISO 11357-6
Heat deflection temperature B (0.45 MPa) [1]	85	°C	ISO 75-2
Tensile modulus	1350	MPa	ISO 527-2
Tensile stress at yield (50 mm/min)	25	MPa	ISO 527-2
Tensile strain at yield (50 mm/min)	6	%	ISO 527-2
Charpy impact strength, notched (23 °C)	15	kJ/m²	ISO 179-1/1eA
Charpy impact strength, notched (-20 °C)	6.5	kJ/m²	ISO 179-1/1eA

* Data should not be used for specification work

[1] *Measured on injection moulded specimens acc. to ISO 1873-2.*

Processing techniques

PP1121 is easy to process with standard extrusion machines.

Following extrusion parameters should be used as guidelines:
when extruding PP1121 a typical extruder temperature profile is 195-230-230-230/230. Specific recommendations for processing conditions can be determined only when the application and type of equipment are known.

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Packaging and storage

PP1121 has a shelf life of 24 months from production date if stored in unopened original packages, under dry and clean conditions at temperatures between 10 - 30 °C (50 - 85 °F). Material shelf life is affected by the storage conditions and extreme conditions influence the general material quality and performance. It is also recommended to ensure proper stock rotation by First In – First Out principle.
More information on storage is found in the Safety data sheet (SDS) / Product safety information sheet (PSIS) for this product.

Product compliance documents

Latest versions of product safety information sheets (PSIS), product safety data sheets (SDS) and other product liability documents are available in our website www.borealisgroup.com.

Sustainability aspects

Borealis is ever mindful of the impact of our products on the planet. We promote Design for Circularity (DfC) and Design for Recycling (DfR) to conserve natural resources and to reduce the environmental impact of products over their entire lifetime (including production, use phase and after phase). DfR helps ensure that material can be effectively recycled while maximizing the material performance efficiency. Further information on sustainability and Design for Recycling (DfR) can be found from our websites www.borealisgroup.com and www.borealiseverminds.com.

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