



BIO PLAST POM SP. Z O.O.

NOPLA 103

Biodegradable thermoplastic material designed for injection moulding applications

PRODUCT DATA SHEET

Date: 07.2023

Product description	Thermoplastic material 100% of biological origin, produced from annually renewable plant resources, GMO free. Designed for injection moulding applications. It is fully biodegradable and compostable in natural conditions.
Processing conditions	<p>The material is designed for injection moulding production.</p> <p>It has hygroscopic properties, which is why it is supplied in airtight packaging that should be unsealed immediately before use. It is recommended to pre-dry the product before processing. It is also recommended that the granules be protected from moisture at each stage of processing, as well as during storage in unsealed packages.</p> <p>Processing parameters:</p> <p>Supply zone temperature below 30°C</p> <p>Temperature of the plasticising zone within the range of 160-200°C</p> <p>Mould temperature below 30°C</p> <p>The material is not compatible with plastics, therefore the cleaning of the injection system is required in order to avoid microplastic contamination.</p> <p>Do not overheat the material to more than 200°C. It is advisable to prevent prolonged stagnation of the material in the cylinder, otherwise thermal degradation may occur, leading to production instability and deterioration of the properties of products.</p>
Form/Colour	The product has the form of beige granulate. Colouring should only be carried out with the manufacturer's supplied colour concentrates.
Storage	<p>The granulate in airtight packaging should be stored in a dry and cool place with no direct sunlight access and all the external sources of heat.</p> <p>The packaging must be airtight until the material is used and resealed after use to avoid water contamination.</p> <p>If the granulate becomes moist it is advisable to dry it before use for at least 3 h at the temperature of 60°C.</p>
Packaging	Barrier: 26 kg bag, 1000 kg big bag, 1000 kg octabin



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Typical properties	Unit	Nominal value*	Research method
Physical			
Density	g/cm ³	1.32	PN-EN ISO 1183-1
MFR (190°C, 2.16 kg)	g/10 min	34	PN-EN ISO 1133
MVR (190°C, 2.16 kg)	cm ³ /10 min	29	
Mechanical			
Tensile strength	MPa	30	
Elongation at break	%	2	PN-EN ISO 527
Tensile modulus of elasticity	GPa	1.2	
Modulus of rupture	MPa	39	
Modulus of elasticity under bending	GPa	2.1	PN-EN ISO 178
Charpy notched impact strength	kJ/m ²	8	PN-EN ISO 179-1
Izod unnotched impact strength	kJ/m ²	7	PN-EN ISO 180
Thermal			
Vicat softening point, method A/10 N	°C	61	PN-EN ISO 306
HDT – heat deflection temperature, method B (0.45 MPa)	°C	54	PN-EN ISO 75-2

* Typical nominal values stated for information only, do not treat as the product specification.

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