Circo® PP-LGF 40-5520C

Post-consumer recycled (PCR) polypropylene reinforced with long glass fibres

Product Description

Circo® PP-LGF is a compound made from recycled polypropylene reinforced with long glass fibre for injection moulded applications. The compound is supplied in pellet form. The grade is available in grey colour.

Sustainability

Compound contains post-consumer recycled (PCR) material which is separately collected plastic packaging from households in accordance with EN ISO 14021:2016. The quality and traceability of recycled content is certified by RecyClass.

The material is recyclable. For further information, please contact NG Nordic representative.

Typical Properties

	Nominal Value	Units	Test Method
Mechanical			
Tensile Modulus	8300	MPa	ISO 527
Tensile Strength at Yield	83	MPa	ISO 527
Tensile Elongation at Break	1,2	%	ISO 527
Charpy Impact Strength (A notched) +23°C	12	kJ/m2	ISO 179
Charpy Impact Strength (Unnotched) +23°C	37	kJ/m2	ISO 179
Charpy Impact Strength (A notched) -20°C	10	kJ/m2	ISO 179
Charpy Impact Strength (Unnotched) -20°C	37	kJ/m2	ISO 179
Physical			
Density	1210	kg/m3	ISO 1183
Post-consumer recycled (PCR) content	>55	%	Weight
Filler content	40	%	Weight
Filler type	Long glass fibre		
Colour	Grey		
Mold shrinkage	0,0/1,6	%	Internal

These are typical property values not to be construed as specification limits.

Processing: Injection moulding

No pre-drying is needed when stored properly. Residual moisture is suggested to keep below 0,2%.

The injection moulding cylinder temperature range is typically, but not limited to, above 190 °C and under 250 °C. The optimum temperature profile should be determined by the specific needs of the application. Mould temperatures should also be matched to the application, typically between 20 °C and 80 °C.

Use modest to mid-fast injection speeds and it should be matched to design. Use holding pressure as needed and it is typically 30-70% of the injection pressure. The holding pressure time should be applied until gate is frozen or part weight is stabilized. Use modest rpm on plasticization with mid-low back pressure to ensure melt homogeneity and to avoid fibre breakage.

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During the production pause, lower the melt temperatures; after reheating, purge sufficiently when starting the operation again.

Features

- Sustainable: PP up to 70% lower carbon footprint
- Excellent stiffness
- Fast production cycle time

Applications

- Automotive
- Consumer goods
- Furniture & décor
- Electrical & electronic products

Further Information

Certificates

Quality Management System	ISO 9001:2015 No. 1111-16
Environmental Management System	ISO 14001:2015 No. 1110-17
Occupational Health and Safety System	ISO 45001:2018 No. 5051-11
RecyClass Recycling Process	EN 15343

Health and Safety

Material is based on post-consumer recycled plastic. Please verify that use of PCR based materials is permitted in your products.

For further information about safety in handling and processing please refer to the Safety Data Sheet.

Storage

The granulate is packed in big bags or bulk containers.

Material should be stored in dry conditions at normal temperatures and protected from UV-light. If it is stored under certain conditions, i.e. if there are large fluctuations in ambient temperature and the atmospheric humidity is high, moisture may condense inside the packaging. Under these circumstances, it is recommended to dry the resin before use.

Disclaimer

It is the customer's responsibility to inspect and test our products in order to satisfy itself as to the suitability of the products for the customer's particular purpose. The customer is responsible for the appropriate, safe and legal use, processing and handling of our products.

The suitability of the material for planned use should be always verified by the customer. NG Nordic is reporting these values and guidelines based on its own knowledge; updates may occur without notice. Please verify data accuracy with NG Nordic.

Company Information

For further information, please visit: www.circoplastics.com

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