Circo® LDPE 2002 Grey

Post-consumer recycled (PCR) low-density polyethylene

Product Description

Circo® LDPE is post-consumer recycled low-density polyethylene for blown film applications with low CO2 emissions. The material is supplied in pellet form. The grade is available in grey colour.

Sustainability

Circo LDPE 2002 Grey contains >95% of post-consumer recycled 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 total cradle-to-gate carbon footprint of product (GWP total) is ca. 630 kg CO2 eq per 1000kg of the packed granulates.

The material is 100% recyclable. For further information, please contact NG Nordic representative.

Typical Properties

	Nominal Value	Units	Test Method
Mechanical			
Tensile Strength at Yield, Machine direction	16	MPa	ISO 527
Tensile Strength at Yield, Transverse direction	14	MPa	ISO 527
Tensile Elongation at Break, Machine direction	>350	%	ISO 527
Tensile Elongation at Break, Transverse direction	>450	%	ISO 527
Physical			
Density	965	kg/m3	ISO 1183
Post-consumer recycled (PCR) content	>95	%	Weight
Melt flow rate (190°C/2,16 kg)	0,7	g/10min	ISO 1133
Ash content	6	%	ISO 3451-1
Colour	Grey		
Filtration	110	µm	

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

Processing: Blown film

The extrusion cylinder temperature range is typically, but not limited to, from 170 °C to 190 °C for blown film applications. The cylinder temperature profile should be adjusted, with the zone 1 section typically being 20 °C lower than the die area. Efficient cooling of the feed throat is recommended to prevent sticking. The optimum temperature profile should be determined by the specific needs of the application. The die temperature is typically around 185 °C.

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

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The produced film can be sealed with typical sealing process; corona treatment is suggested prior to printing. Consider using efficient melt filtration.

Features

- Low friction
- Sealable
- Excellent at extrusion
- Good chemical resistance
- Good performance in low temperatures
- Electrical insulation properties

Applications

- Bags & industrial films
- Packaging & containers
- Construction materials
- Agriculture

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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