Technical Data Sheet

*Circulen*Recover HD5603 Grey Plus

High Density Polyethylene

Product Description

*Circulen*Recover HD5603 Grey Plus is a circular high density polyethylene grade supplied in pellet form for blow molding and extrusion applications. This grade is characterized by its low residual odor and easy processability.

Sustainability

According with the requirements of Standard ISO 14021:2016, *Circulen*Recover HD5603 Grey Plus contains at least 98% of recycled material that is fully based on Post-Consumer Waste (PCW) from pre-sorted municipal plastic waste. Filtration level is 150 µm. Volatiles according to ASTM D6980 @ 120 °C are < 0.1%. Based on CIELab values, the color indication is close to RAL 7012.

This product is not intended for highly regulated applications including food contact, potable water contact, medical and pharmaceutical applications.

Application	Bottles For Consumer Goods; Bottles for Industrial Use; General Sheet Extrusion
Market	Consumer Products; Industrial Packaging; Rigid Packaging
Processing Method	Extrusion Blow Molding; Sheet and Profile Extrusion
Attribute	Antioxidant; General Purpose; High Rigidity

Typical Properties	Nominal Value	Units	Test Method
Physical			
Melt Flow Rate			
(190 °C/2.16 kg)	0.40	g/10 min	ISO 1133-1
(190 °C/5.0 kg)	1.8	g/10 min	ISO 1133-1
Density	0.956	g/cm³	ISO 1183-1
Bulk Density	>0.500	g/cm³	ISO 60
Mechanical			
Tensile Modulus	1200	MPa	ISO 527-1, -2
Tensile Stress at Yield	24	MPa	ISO 527-1, -2
Tensile Strain at Yield	9	%	ISO 527-1, -2
FNCT, (6.0 MPa, 2% Arkopal N100, 50 °C)	8	hr	ISO 16770
Impact			
Charpy Impact Strength - Notched, (-30 °C, Type 1, Edgewise, Notch A)	2.5	kJ/m²	ISO 179
Additional Information			
Ash	< 2	wt %	ISO 3451-1
600 °C			
Processing Parameters			
Melt Temperature	180 - 210	°C	