

Technical Datasheet and Product Information

High Density Polyethylene (HDPE)

Description

Recycled thermoplastic HDPE regrind from post industrial waste of heating pipes, which is produced in different grain sizes (GS) by a dry mechanical separation process. The HDPE regrind contains aluminium residuals in mixed form of dust and granules in the respective GS range. All products are delivered with a Product Carbon Footprint (PCF) of 460 kg_{CO2e}/t_{HDPE}.

GS 1: 0.1 – 0.7 mm



GS 2: 0.7 – 5.0 mm



GS 3: 5.0 – 12 mm



Characteristics (mechanical values based on analyses of GS 1)

Parameter	Unit	Value	Method
Product Carbon Footprint (PCF)	kg _{CO2e} /t _{HDPE}	460	DIN EN ISO 14067 (Gate-to-Gate)
Colour	–	Mixed Grey	Visual Inspection
Physical Density	g/cm ³	0.976	DIN EN ISO 1183
Bulk Density (after filling in Big Bags)	kg/m ³	≈ 500	Big Bag Weight/Volume
Mass Flow Rate (MFR)	g/10 min	0.5	DIN EN ISO 1133 (190 °C, 2.16 kg)
		1.69	DIN EN ISO 1133 (190 °C, 5.0 kg)
Notched Charpy Impact Strength	kg/m ²	31.1	DIN EN ISO 179-1 (RT, 1eA)
Tensile Modulus	MPa	547.0 ± 8	DIN EN ISO 527-1/2 (RT, 1 mm/min)
Tensile Strength	MPa	16.3 ± 0.1	DIN EN ISO 527-1/2 (RT, 50 mm/min)
Strain at Tensile Strength	%	10.9 ± 0.2	DIN EN ISO 527-1/2 (RT, 50 mm/min)
Tensile Strain at Break	%	289.4 ± 8.7	DIN EN ISO 527-1/2 (RT, 50 mm/min)
Aluminium Content	%	≈ 2.0 – 4.0	DIN EN 16171

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