Technical Data Sheet

PETILEN G03-5
Low Density Polyethylene (LDPE)

PETKİM

Description

PETILEN G03-5 is a low density polyethylene resin produced by high pressure autoclave process. The product has broad molecular weight distribution and low melt flow rate. Developed for general purpose applications, PETILEN G03-5 contains no additives.

Applications

Blown film extrusion: shrink films, construction and agricultural films, heavy duty bags and sacks
Blow molding: containers and bottles
Pipe extrusion: drip irrigation pipes

Compliance to Regulations

The formulation and production of PETILEN G03-5 conforms to the compositional requirements of the Commission Regulation (EU) No. 10/2011.

Properties	Typical Values (*)	Units	Test Methods
Resin Properties			
Melt Flow Rate (190°C/2.16 kg)	0.30	g/10 min	ASTM D1238
Density, 23°C	0.920	g/cm³	ASTM D1505
Melting Point (DSC, 2nd heating)	110	°C	ASTM D3418
Film Properties (**)			
Tensile Strength at Yield, MD	12	MPa	ASTM D882
Tensile Strength at Yield, TD	11	MPa	ASTM D882
Tensile Strength at Break, MD	26	MPa	ASTM D882
Tensile Strength at Break, TD	23	MPa	ASTM D882
Elongation at Break, MD	>250	%	ASTM D882
Elongation at Break, TD	>500	%	ASTM D882
Tear Strength, MD	240	cN	ASTM D1922
Tear Strength, TD	260	cN	ASTM D1922
Dart Drop Impact, F_{50}	260	g	ASTM D1709A
Coefficient of Friction	>0.6	-	ASTM D1894
Optical Properties			
Haze	9.3	%	ASTM D1003
Gloss, 45°	58	GU	ASTM D2457
Thermal Properties			
Vicat Softening Point, 10 N	98	°C	ASTM D1525

(*) These are typical properties only and are not to be construed as specifications. Customers should confirm results by their own tests.
(**) Film properties are measured on 50 µm blown film, Blow up ratio (BUR) 3:1, melt temperature ~205°C.
MD: Machine Direction, TD: Transverse Direction.

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Recommended Processing Conditions

Film extrusion applications;
Typical zone temperature: 160 - 220°C
Typical melt temperature: 190 - 210°C
Typical blow-up ratio (BUR): 2:1 - 3:1

Processing conditions should be optimized for different equipment design.

Health, Safety and Food Contact Regulations

The detailed information of the PETILEN G03-5 product is given in Safety Data Sheet and Food Contact Declaration of the product. Please contact your sales representatives or visit web site for the food contact application compliance (e.g. EU, FDA) and other regulatory documents.

Packing and Storage

The material is packaged in PE bags or in PP Big Bags. The product should be stored in a dry area with an ambient temperature below 50°C. It should be kept away from sunlight, sparks, heat and flame. Inappropriate storage conditions can lead to bad smell, color changes and the deterioration in physical properties. It is advised to process PE resins within 6 months after delivery.

Recycling

The product is not hazardous or toxic and it is suitable for recycling using available recycling methods.

Medical Applications Policy

The product mentioned herein is not tested for use in pharmaceutical/medical applications. It is the responsibility of the final product manufacturer to determine that PETKIM product is suitable for intended use.

Disclaimer

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