

Technical Data Sheet

PETILEN G03-5

Low Density Polyethylene (LDPE)



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 Value (*)	Unit	Test Method
Resin Properties			
Melt Flow Rate (190°C/2.16 kg)	0.30	g/10 min	ASTM D1238
Density, 23°C	0.920	g/cm ³	ASTM D1505
Melting Point (DSC)	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
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

Due to differences in extrusion, processing conditions should be optimized for each extruder design.

Health, Safety and Food Contact Regulations

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

Storage

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 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. If it can't be recycled, the waste material can be disposed at a suitable landfill site, or at an approved waste incineration facility in accordance with applicable local, provincial, state and federal regulations.

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.

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