Manufacturer website: https://www.petkim.com.tr/

Technical Data Sheet

PETILEN G1-21
Low Density Polyethylene (LDPE)

Description

PETILEN G1-21 is an additive-free, general-purpose low-density polyethylene (LDPE) produced by high-pressure autoclave with a broad molecular weight distribution.

Applications

Blown Film Extrusion: thin shrink film, flexible packaging film.

Properties	Typical Values (*)	Units	Test Methods
Resin Properties			
Melt Flow Rate (190°C/2.16 kg)	1.0	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	11	MPa	ASTM D882
Tensile Strength at Yield, TD	10	MPa	ASTM D882
Tensile Strength at Break, MD	24	MPa	ASTM D882
Tensile Strength at Break, TD	21	MPa	ASTM D882
Elongation at Break, MD	>250	%	ASTM D882
Elongation at Break, TD	>500	%	ASTM D882
Tear Strength, MD	270	cN	ASTM D1922
Tear Strength, TD	250	cN	ASTM D1922
Dart Drop Impact, F_{50}	150	g	ASTM D1709A
Coefficient of Friction	>0.6	-	ASTM D1894
Optical Properties			
Haze	8.0	%	ASTM D1003
Gloss, 45°	74	GU	ASTM D2457
Thermal Properties			
Vicat Softening Point, 10 N	91	°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.

PETKİM PETROKİMYA HOLDİNG A.Ş.
Siteler Mah. Necmettin Giritlioğlu Cad.
SOCAR Türkiye Aliağa Yönetim Binası No: 6/1 35800 Aliağa/İZMİR
Tel: +90 232 616 12 40 www.petkim.com.tr

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Recommended Processing Conditions

Film extrusion applications;
Typical zone temperature: 150 - 200°C
Typical melt temperature: 180 - 190°C
Typical blow-up ratio (BUR): 2:1 - 3:1

Processing conditions should be optimized for different equipment design.

Product Safety and Compliance with Regulations

Detailed safety information of the products is given in the Product Safety Data Sheet. Compliance information of the products with the relevant legislation is detailed in the Declarations of Compliance with Food Contact, Compliance with Chemical Regulations and Additive Origin Declarations. Current declarations are available on the website. For more detailed information, please contact your sales representatives.

Packing and Storage

Available in PE bags or 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. Improper storage may result in odor development, discoloration, or deterioration of physical properties. Processing within 6 months of delivery is recommended to ensure optimal performance. Prior to processing PE product bags shall be kept in production area for at least 12 hours.

Recycling

This product is non-hazardous and fully recyclable via standard polyethylene recycling streams.

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