

Technical Data Sheet

PETILEN YY I457(O)
High Density Polyethylene (HDPE)**Description**

PETILEN YY I457(O) is a high density polyethylene grade, especially designed for injection and rotary compression molding applications.

PETILEN YY I457(O) offers an ideal combination of good organoleptic properties, impact strength and environmental stress crack resistance.

Applications

Injection and rotary compression molding: organoleptic caps and closures for still (non-carbonated) mineral water and non-carbonated soft drink bottles

Compliance to Regulations

The formulation and production of PETILEN YY I457(O) 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)	4.0	g/10 min	ASTM D1238
Density, 23°C ⁽¹⁾	0.957	g/cm ³	ASTM D1505
Melting Point (DSC, 2nd heating)	133	°C	ASTM D3418
Mechanical Properties (**)			
Tensile Strength at Yield	29	MPa	ASTM D638
Tensile Strength at Break	25	MPa	ASTM D638
Elongation at Break	>1000	%	ASTM D638
Flexural Modulus, 23°C	1000	MPa	TS EN ISO 178
Izod Impact Strength, 23°C (notched)	60	J/m	ASTM D256
Hardness (Shore D)	62	-	ASTM D2240
Environmental Stress Crack Resistance (10% Igepal, F50)	4	h	ASTM D1693
Thermal Properties			
Vicat Softening Point, 10 N	122	°C	ASTM D1525

(1) Measured on specimens, prepared according to ASTM D2839.

(*) These are typical properties only and are not to be construed as specifications. Customers should confirm results by their own tests.

(**) The values given are measured based on compression molded sheet.

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Recommended Processing Conditions

Injection molding applications;
Typical melt temperature: 220 - 250°C
Typical mold temperature: 20 - 40°C
Typical injection pressure: As high as possible.

Rotary compression molding applications;
Typical zone temperature: 160 - 185°C

In order to have good organoleptic properties, melt temperature has to be maximum 250°C.

Processing conditions should be optimized for different equipment design.

Health, Safety and Food Contact Regulations

The detailed information of the PETILEN YY I457(O) product is given in Material 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 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 PETKİM product is suitable for intended use.

Disclaimer

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PPU-CST-TDS-0037

Rev. Date: 10/13/2021

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