TECHNICAL DATA SHEET

HYOSUNG Polypropylene
The Next Circular Economy

R301E

Random Polymer

For Extrusion Sheet, Blow molding

Product Description

HYOSUNG Polypropylene R301E is a specially designed polypropylene random copolymer that features excellent transparency and high melt tension. It is suitable for sheet extrusion and extrusion blow molding applications.

Application

EBM Bottles
Transparent thermoforming sheet
Stationaries

Features

High transparency
High gloss
Phthalate free

Properties

Properties	Test Method	Typical Value	Unit
Resin Properties			
Melt Index(230℃, 2.16kg)	ASTM D1238 ISO 1133	1.8	g/10min
Density	ASTM D792 ISO 1138	0.90	g/cm^3
Mechanical Properties			
Tensile Strength at Yield	ASTM D638	310	kg/cm^2
	ISO 527	28	MPa
Flexural Modulus	ASTM D790	11,000	kg/cm^2
	ISO 178	940	MPa
Izod Impact Strength, Notched at 23℃	ASTM D256	9.5	kg·cm/cm
Charpy Impact Strength	ISO 179/1eA	7.5	kJ/m^2
Haze(2mm)	ASTM D1003	20	%
Rockwell Hardness	ASTM D785 ISO 2039	85	R-Scale

* The values listed above are typical values for reference purpose only and shall not be construed as specifications.

Storage and Handling

This product should be stored in dry condition at temperature below 40˚C and protected from UV-light. When condensation is visible or can be expected, pre-drying is recommended. (Drying condition: 80~100℃ / 2~4hours at air circulated condition)

Disclaimer

All information, including product characteristics, applications and properties are for reference purpose only and shall not be construed as specifications. Before using this product, customers should carefully review the instructions for use of the product to determine whether the product is suitable for the customer's particular purpose. The customer is responsible for the appropriate, safe and legal use, processing and handling of this product. HYOSUNG CHEMICAL CORPORATION assumes no legal responsibility or liability for the contents of this document. We reserve the right to change the contents of this document without prior notice. This document is copyrighted by HYOSUNG CHEMICAL CORPORATION.

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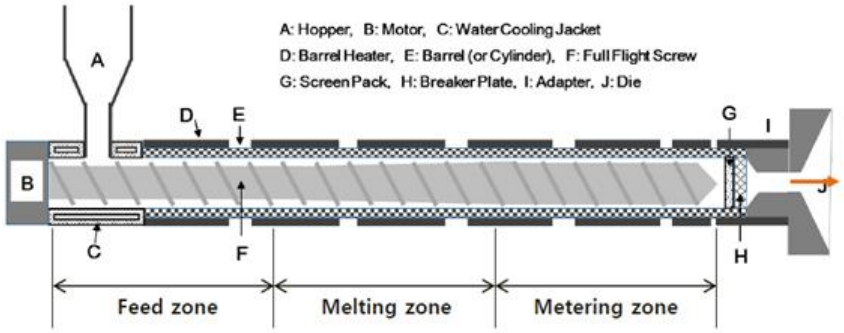
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Processing Parameters



Specifications	Unit	Recommended Parameters
Feed Zone Temperature	℃	160 ~ 180
Melting Zone Temperature	℃	180 ~ 225
Metering Zone Temperature	℃	180 ~ 250
Die Temperature	℃	180 ~ 250
Mold Temperature (for EBM)	℃	
Screw Speed	rpm	40 ~ 70
Blow Pressure (for EBM	Psi	90

Considerations

Due to variations in screw design and heat efficiency according to types of facilities, optimal conditions for each facility may differ. Therefore, the optimal temperature conditions for each facility must be taken into consideration depending on thickness of film, extruding pressure, cooling efficiency, changes in MI of the final product, appearances of the final product, and others.

Health, Safety and Food Contact Regulations

PP R301E complies with FDA requirements in the code of Federal Regulations in 21 CFR 177. 1520 for food contact and European Commission Regulation (EU) No 10/2011 and its amendments up to (EU) No 2023/1627 with regard to plastic materials and articles intended to come into contact with food.

Energy Savings

PP R301E provides improved aesthetics at significantly lower process temperatures that leads to lowered energy consumptions, shortened cycle time and improved productivity. It enables an average of 10% energy savings for production of clarified PP parts.

Milliken
Millad® NX™ 8000
The New Standard In Clear Polypropylene

UL VALIDATED
• MILLAD® NX™ 8000 ENABLES AN AVERAGE OF 10% ENERGY SAVINGS FOR PRODUCTION OF CLARIFIED PP PARTS
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