POLYPROPYLENE DATASHEET

PRODUCT DESCRIPTION

Polypropylene is a very low melting flow rate, long term heat stabilized, ultra-high impact copolymer for blow molding and sheet extrusion applications. It offers a superior balance of high stiffness and outstanding impact strength compared with competitive products even at low temperatures.

APPLICATIONS

- Non-pressure pipes / fittings
- Blow molding
- Compression molding
- Sheet extrusion

BENEFITS AND FEATURES

- High impact resistance
- Excellent melt strength
- Long term heat stability
- Excellent surface finish
- UV Resistant and Non-rusting
- High stiffness resistance

COMPOSITION

COMPONENTS	% in weight	CAS
Polypropylene	0 – 100%	9003-07-0
Propylene Ethylene Copolymer	0 – 100%	9010-79-1
Propylene Butene 1 Copolymer	0 – 100%	29160-13-2
Propylene Ethylene Butene 1 Terpolymer	0 – 100%	25895-47-0

Dangerous component: None

IDENTIFICATION OF RISKS

Physical – chemical properties	No hazard will result from the product if it is used in the state which it is provided.
Properties with health effects	No hazard will result from the product if it is used in the state which it is provided.
Environmental properties	No hazard will result from the product if it is used in the state which it is provided.

GENERAL

Material Status	Commercial: Active
Test Standards	ISO
Forms	Pellet, Granules, Crystallized Powder
Finish	Egg Shell
Color	Whitish / Greyish
Odor	Odorless
Processing Method	Blow Molding, Compression Molding, Extrusion,

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PHYSICAL AND CHEMICAL PROPERTIES

	Unit	Values	Test Methods
Polymer Properties			
Melt flow rate (MFR) at 230C/2.16kg	dg/min	0.30	ISO 1133
Density	kg/m^3	905	ISO 1183
Formulation			
Anti-Static Agent	-	No	
Nucleating Agent	-	Yes	
Formulation			
Tensile Stress (Yield)	MPa	28	ISO 527-2, -1
Tensile Strain (Yield)	%	8	ISO 527-2, -1
Tensile Modulus	MPa	1450	ISO 527-2, -1
Izod Impact Notched at 23°C	kJ/m^3	No Break	ISO 180/1A
Izod Impact Notched at 0°C	kJ/m^3	35	ISO 180/1A
Izod Impact Notched at -20°C	kJ/m^3	6	ISO 180/1A
Charpy Impact Notched at 23°C	kJ/m^3	80	ISO 179/1eA
Charpy Impact Notched at 0°C	kJ/m^3	20	ISO 179/1eA
Charpy Impact Notched at -20°C	kJ/m^3	7	ISO 179/1eA
Charpy Impact Unnotched at 23°C	kJ/m^3	No Break	ISO 179/1eA
Hardness (Shore D)	-	66	
Thermal Properties			
Heat Deflection Temperature at 1.8 MPa (HDT/A)	°C	55	ISO 75
Heat Deflection Temperature at 0.45 MPa (HDT/B)	°C	95	ISO 75
Vicat Softening Temperature at 10 N (VST/A)	°C	156	ISO 306
Vicat Softening Temperature at 50 N (VST/B)	°C	81	ISO 306
Oxidation Induction Times (Test 200°C)	Min	>100	EN 728
Melting Point	°C	170	
Auto-Ignition Temperature	°C	>350	
Flash Point	°C	>320	
UV Stabilizer			
Anti-UV (HALS)	%	5	