Technical Data Sheet

Pro-fax RP735S

Polypropylene, Random Copolymer



Product Description

Pro-fax RP735S clarified, easy molding high melt flow polypropylene random copolymer resin is available in pellet form. This resin is typically used in injection molding applications requiring good see-through and contact clarity, along with good impact resistance.

Regulatory Status

For regulatory compliance information, see *Pro-fax* RP735S <u>Product Stewardship Bulletin (PSB) and Safety Data Sheet (SDS).</u>

Status Commercial
Availability North America

Application Clear Containers; Housewares

Market Consumer Products; Rigid Packaging

Processing Method Injection Molding

Attribute Good Impact Resistance; Good Optical Properties; High Clarity

Typical Properties Value Units Value Units Test Method		Nominal	English	Nominal		
Melt Flow Rate, (230 °C/2.16 kg) 38 g/10 min 38 g/10 min ASTM D1238 Density, (23 °C) 0.90 g/cm³ 0.90 g/cm³ ASTM D792 Mechanical Flexural Modulus (0.05 in/min, 1% Secant, Procedure A) 140000 psi ASTM D790 (1.3 mm/min, 1% Secant, Procedure A) 140000 psi ASTM D790 Tensile Strength at Yield ASTM D638 ASTM D638 (2 in/min) 3900 psi ASTM D638 (50 mm/min) 26.9 MPa ASTM D638 Tensile Elongation at Yield 14 % 14 % ASTM D638 Impact Notched Izod Impact Strength ASTM D638 ASTM D638 (73 °F, Method A) 1.3 ft-lb/lin ASTM D540 ASTM D256 (23 °C, Method A) 1.3 ft-lb/lin ASTM D5420 ASTM D5420 (23 °C, Geometry GC) 185 in-lbs ASTM D5420 ASTM D5420 Thermal Deflection Temperature Under Load (66 psi, Unannealed) 165 °F ASTM D648 Optical	Typical Properties	Value	Units	Value	Units	Test Method
Density, (23 °C) 0.90 g/cm³ 0.90 g/cm³ ASTM D792 Mechanical Flexural Modulus (0.05 in/min, 1% Secant, Procedure A) 140000 psi ASTM D790 (1.3 mm/min, 1% Secant, Procedure A) 965 MPa ASTM D790 Tensile Strength at Yield ASTM D638 ASTM D638 (50 mm/min) 26.9 MPa ASTM D638 Tensile Elongation at Yield 14 % 14 % ASTM D638 Impact ASTM D638 ASTM D638 Impact ASTM D638 ASTM D638 (73 °F, Method A) 1.3 ft-lb/in ASTM D540 (23 °C, Method A) 69 J/m ASTM D256 Gardner Impact ASTM D256 ASTM D5420 (23 °C, Geometry GC) 185 in-lbs ASTM D5420 (23 °C, Geometry GC) 20.3 J ASTM D5420 Thermal ASTM D648 Deflection Temperature Under Load ASTM D648 (66 psi, Unannealed) 165 °F ASTM D648 Optical	Physical					
Mechanical Flexural Modulus (0.05 in/min, 1% Secant, Procedure A) 140000 psi ASTM D790 (1.3 mm/min, 1% Secant, Procedure A) 965 MPa ASTM D790 Tensile Strength at Yield (2 in/min) 3900 psi ASTM D638 (50 mm/min) 26.9 MPa ASTM D638 Tensile Elongation at Yield 14 % 14 % ASTM D638 Impact Notched Izod Impact Strength (73 °F, Method A) 1.3 ft-lb/in ASTM D256 Gardner Impact (23 °C, Method A) 69 J/m ASTM D256 Gardner Impact (73 °F, Geometry GC) 185 in-lbs ASTM D5420 (23 °C, Geometry GC) 20.3 J ASTM D5420 Thermal Deflection Temperature Under Load (66 psi, Unannealed) 165 °F ASTM D648 (0.45 MPa, Unannealed) 74 °C ASTM D648	Melt Flow Rate, (230 °C/2.16 kg)	38	g/10 min	38	g/10 min	ASTM D1238
Flexural Modulus	Density, (23 °C)	0.90	g/cm³	0.90	g/cm³	ASTM D792
(0.05 in/min, 1% Secant, Procedure A) 140000 psi ASTM D790 (1.3 mm/min, 1% Secant, Procedure A) 965 MPa ASTM D790 Tensile Strength at Yield 3900 psi ASTM D638 (50 mm/min) 26.9 MPa ASTM D638 Tensile Elongation at Yield 14 % 14 % ASTM D638 Impact Notched Izod Impact Strength ASTM D638 (23 °C, Method A) 1.3 ft-lb/in ASTM D256 (23 °C, Method A) 69 J/m ASTM D256 Gardner Impact ASTM D5420 ASTM D5420 (23 °C, Geometry GC) 185 in-lbs ASTM D5420 (23 °C, Geometry GC) 20.3 J ASTM D5420 Thermal Deflection Temperature Under Load (66 psi, Unannealed) 165 °F ASTM D648 (0.45 MPa, Unannealed) 74 °C ASTM D648 Optical	Mechanical					
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(2 in/min) 3900 psi ASTM D638 (50 mm/min) 26.9 MPa ASTM D638 Tensile Elongation at Yield 14 % 14 % ASTM D638 Impact Notched Izod Impact Strength (73 °F, Method A) 1.3 ft-lb/in ASTM D256 (23 °C, Method A) 69 J/m ASTM D256 Gardner Impact (73 °F, Geometry GC) 185 in-lbs ASTM D5420 (23 °C, Geometry GC) 20.3 J ASTM D5420 Thermal Deflection Temperature Under Load (66 psi, Unannealed) 165 °F ASTM D648 (0.45 MPa, Unannealed) 74 °C ASTM D648 Optical	(1.3 mm/min, 1% Secant, Procedure A)			965	MPa	ASTM D790
(50 mm/min) 26.9 MPa ASTM D638 Tensile Elongation at Yield 14 % 14 % ASTM D638 Impact Notched Izod Impact Strength (73 °F, Method A) 1.3 ft-lb/in ASTM D256 (23 °C, Method A) 69 J/m ASTM D256 Gardner Impact ASTM D5420 ASTM D5420 (23 °C, Geometry GC) 185 in-lbs ASTM D5420 (23 °C, Geometry GC) 20.3 J ASTM D5420 Thermal Deflection Temperature Under Load (66 psi, Unannealed) 165 °F ASTM D648 (0.45 MPa, Unannealed) 74 °C ASTM D648 Optical	Tensile Strength at Yield					
Tensile Elongation at Yield 14 % 14 % ASTM D638 Impact	(2 in/min)	3900	psi			ASTM D638
Impact	(50 mm/min)			26.9	MPa	ASTM D638
Notched Izod Impact Strength 1.3 °F, Method A) 1.3 °ft-lb/in ASTM D256	Tensile Elongation at Yield	14	%	14	%	ASTM D638
(73 °F, Method A) 1.3 ft-lb/in ASTM D256 (23 °C, Method A) 69 J/m ASTM D256 Gardner Impact (73 °F, Geometry GC) 185 in-lbs ASTM D5420 (23 °C, Geometry GC) 20.3 J ASTM D5420 Thermal Deflection Temperature Under Load (66 psi, Unannealed) 165 °F ASTM D648 (0.45 MPa, Unannealed) 74 °C ASTM D648 Optical	Impact					
(23 °C, Method A) 69 J/m ASTM D256 Gardner Impact	Notched Izod Impact Strength					
Gardner Impact (73 °F, Geometry GC) 185 in-lbs ASTM D5420 (23 °C, Geometry GC) 20.3 J ASTM D5420 Thermal Deflection Temperature Under Load (66 psi, Unannealed) 165 °F ASTM D648 (0.45 MPa, Unannealed) 74 °C ASTM D648 Optical	(73 °F, Method A)	1.3	ft-lb/in			ASTM D256
(73 °F, Geometry GC) 185 in-lbs ASTM D5420 (23 °C, Geometry GC) 20.3 J ASTM D5420 Thermal Deflection Temperature Under Load (66 psi, Unannealed) 165 °F ASTM D648 (0.45 MPa, Unannealed) 74 °C ASTM D648 Optical	(23 °C, Method A)			69	J/m	ASTM D256
(23 °C, Geometry GC) 20.3 J ASTM D5420 Thermal Deflection Temperature Under Load (66 psi, Unannealed) 165 °F ASTM D648 (0.45 MPa, Unannealed) 74 °C ASTM D648 Optical	Gardner Impact					
Thermal Deflection Temperature Under Load (66 psi, Unannealed) (0.45 MPa, Unannealed) Optical Thermal ASTM D648 ASTM D648 ASTM D648	(73 °F, Geometry GC)	185	in-lbs			ASTM D5420
Deflection Temperature Under Load (66 psi, Unannealed) (0.45 MPa, Unannealed) Optical ASTM D648 ASTM D648 ASTM D648	(23 °C, Geometry GC)			20.3	J	ASTM D5420
(66 psi, Unannealed) 165 °F ASTM D648 (0.45 MPa, Unannealed) 74 °C ASTM D648 Optical	Thermal					
(0.45 MPa, Unannealed) 74 °C ASTM D648 Optical	Deflection Temperature Under Load					
Optical	(66 psi, Unannealed)	165	°F			ASTM D648
· · · · · · · · · · · · · · · · · · ·	(0.45 MPa, Unannealed)			74	°C	ASTM D648
Haze, (45 mil) 11 % ASTM D1003	Optical					
	Haze, (45 mil)	11	%	11	%	ASTM D1003

Notes

These are typical property values not to be construed as specification limits.

Processing Techniques

Specific recommendations for resin type and processing conditions can only be made when the end use, required properties and fabrication equipment are known.

Company Information

For further information regarding the LyondellBasell company, please visit http://www.lyb.com/.

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