# **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					
(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 D256       ASTM D256         (23 °C, Method A)       1.3 ft-lb/in       ASTM D256         (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         Deflection Temperature Under Load         (66 psi, Unannealed)       165 °F       ASTM D648         (0.45 MPa, Unannealed)       74 °C       ASTM D648         Optical	Flexural Modulus					
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-Ib/in ASTM D256 (23 °C, Method A) 69 J/m ASTM D256  Gardner Impact  (73 °F, Geometry GC) 185 in-Ibs 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	(0.05 in/min, 1% Secant, Procedure A)	140000	psi			ASTM D790
(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 <a href="http://www.lyb.com/">http://www.lyb.com/</a>.

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