North America Polypropylene

Product Selection Guide



ABOUT US

LyondellBasell (NYSE: LYB) is one of the largest plastics, chemicals and refining companies in the world. Driven by its employees around the globe. LyondellBasell produces materials and products that are key to advancing solutions to modern challenges like enhancing food safety through lightweight and flexible packaging, protecting the purity of water supplies through stronger and more versatile pipes, improving the safety, comfort and fuel efficiency of many of the cars and trucks on the road, and ensuring the safe and effective functionality in electronics and appliances. LyondellBasell sells products into more than 100 countries and is the world's largest producer of polymer compounds and the largest licensor of polyolefin technologies. In 2018, LyondellBasell was named into Fortune magazine's list of the "World's Most Admired Companies."

More information about LyondellBasell can be found at www.LyondellBasell.com

Contact

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Disclaimer

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Users should review the applicable Material Safety Data Sheet before handling the product.

**Adstif, Metocene, Petrothene and Pro-fax are trademarks owned or used by the LyondellBasell family of companies and are registered in the U.S. Patent and Trademark Office.

Key Information

Status

C:A	Commercial: Active
C:AR	Commercial: Approval Required

Additives

Additives						
Α	Antistat					
AB	Antiblock					
С	Clarified					
LTHA	Long Term Heat Aging					
N	Nucleation					
S	Slip					
>	Visbroken					
WC	Wire and Cable Additive package					
LWCO	Low Water Carry Over					

Other

n.a.	Not Applicable						
N.B.	No Break						
TBD	To Be Determined						
ISBM	Injection Stretch Blow Molding						

Polypropylenes - US Customary Units

Within each section, grades are listed in order of increasing melt flow rate (MFR)

Homopolymers



Trade Name	Grade Name	Status	Melt Flow Rate (g/10min) ASTM D1238	Tensile Strength (psi) ASTM D638	Flexural Modulus (psi) (1% Secant) ASTM D790	Notched Izod Impact (73°F) (ft-lbs/in) ASTM D256	HDT (°F) (66 psi) ASTM D648	UL Listed	Additives	Typical Customer Application	Key Properties
Pro-fax	HP403G	C:A	1.5	5000	220000	1.1	189	No		Netting, strapping, general extrusion	Good Heat Resistance; High Strength
Adstif	HA802H	C:A	2.3	5400	275000	1.0	219	No		Compounding, BOPP and Thermoforming Markets	HCPP high stiffness
Pro-fax	HP525J	C:A	3.0	5100	218000	0.8	203	No		BOPP Film, Compounding, Thermoforming	Good Processability; High Clarity; High Gloss; Medium Flow
Pro-fax	HP553J	C:A	3.5	5200	222000	0.9	n.a.	No	LWCO	Tapes, raffia and general extrusion	Low water carryover
Pro-fax	PH350	C:A	3.5	4800	200000	1.0	190	No		Color concentrates, polymer modifier, wood composites	Lightly stabilized flake, compounding, improved mixing and dispersion with pigments and additives
Pro-fax	6523	C:A	4.0	4800	200000	1.0	190	Yes	LTHA	Automotive	Enhanced heat stability
Pro-fax	HP423M	C:A	8.5	4680	185000	0.9	190	No	S	Cast Film	High clarity
Pro-fax	6301	C:A	12	4900	210000	0.6	200	No		Color concentrates, polymer modifier, wood composites	Lightly stabilized flake, compounding, improved mixing and dispersion with pigments and additives
Pro-fax	6323	C:A	12	4900	210000	0.6	200	Yes	LTHA	Automotive	Enhanced heat stability
Pro-fax	6331	C:A	12	4900	210000	0.6	200	Yes		Caps & Closures; Containers; Food Packaging Film	General Purpose
Pro-fax	6329	C:A	14	4600	170000	0.7	205	No		Closures	Improved Impact and Stress Cracking Resistance
Pro-fax	PF511	C:AR	20	4000	135000	0.6	190	No	V	Medical	Radiation resistant
Pro-fax	HP793R	C:A	20	5500	250000	0.6	240	Yes	N, A	Appliances, Caps & Closures, Containers and Housewares	Fast Cycle (Production); High Stiffness
Pro-fax	PF531	C:AR	27	4100	140000	0.6	185	No	V	Medical	Radiation resistant
Pro-fax	PH835	C:A	34	n.a.	n.a.	n.a.	n.a.	No		Spunbond and extrusion coating	Low gas fading
Pro-fax	PD702	C:A	35	4500	170000	0.6	190	Yes	V	Labware, Extrusion Coating	Good Dimensional Stability; Good Processability
Pro-fax	PD702NW	C:A	35	4800	200000	0.8	230	Yes	N, A, V	Rigid packaging	Contains Antistat; Nucleated
Adstif	HA801U	C:A	65	6100	290000	0.3	270	No	N	Rigid packaging, color concentrates	High MFR, HCPP high stiffness
Metocene	MF650W	C:A	500	4800	230000	n.a.	213	No		Melt blown fiber applications, compounding	Ultra-high MFR flake, improved mixing and dispersion with pigments and additives
Metocene	MF650X	C:A	1200	3300	245000	n.a.	248	No		Melt blown fiber applications, compounding	Ultra-high MFR flake, improved mixing and dispersion with pigments and additives
Metocene	MF650Y	C:A	1800	2800	245000	n.a.	252	No		Melt blown fiber applications, compounding	Ultra-high MFR flake, improved mixing and dispersion with pigments and additives

Polypropylenes - US Customary Units

Within each section, grades are listed in order of increasing melt flow rate (MFR)

Random Copolymers



Trade Name	Grade Name	Status	Melt Flow Rate (g/10min) ASTM D1238	Tensile Strength (psi) ASTM D638	Flexural Modulus (psi) (1% Secant) ASTM D790	Notched Izod Impact (73°F) (ft-lbs/in) ASTM D256	HDT (°F) (66 psi) ASTM D648	UL Listed	Additives	Typical Customer Application	Key Properties
Pro-fax	RP311H	C:A	1.9	4050	150000	4.0	176	No	N, A	Blow molding and thermoforming	Non-clarified
Pro-fax	SR257M	C:A	1.9	4300	140000	7.0	165	No	C, A	Packaging, Bottles, Clear Containers	Excellent clarity
Pro-fax	RP512H	C:A	2.0	4100	150000	7.0	165	No	C, A	Blow molding, Thermoforming	Clarified
Pro-fax	RP913J	C:A	3.5	5300	230000	1.1	228	No	С	Cups and Containers	High clarity
Pro-fax	RP223L	C:A	7.0	3800	130000	1.0	174	No		Bags & Pouches; Breathable Film; Film Wrap; Food Packaging; Heavy Duty Packaging; Hygiene Film; Packaging Foam, and other Foam Applications; Stationery Film; Twist Wrap Film	Foamable; Good Heat Seal; Good Optical Properties; Good Processability; Medium Flow
Pro-fax	RP323M	C:A	8.0	3600	120000	1.2	167	No	V	Cast Film	Barefoot
Pro-fax	SR549M	C:A	11	4300	150000	1.2	170	No	C, A	ISBM bottles, Injection molded containers	Clarified
Pro-fax	RP548N	C:A	11	4000	145000	1.2	180	No	N, A	Caps & Closures, Containers	Low warpage
Pro-fax	RP320N	C:A	12	4000	135000	0.9	170	No		Cast film, foam beads, Extrusion Coating	Heat weldability
Pro-fax	RP491S	C:A	35	3800	135000	1.1	185	No	N, A, V	Sharps containers	Moderate clarity
Pro-fax	RP735S	C:AR	38	3900	140000	1.3	165	No	C, A, S, V	Housewares	High impact, clarified
Pro-fax	RP448S	C:A	40	4000	145000	8.0	185	No	C, A	Clear containers, Housewares, Sports, Leisure & Toys	High flow, clarified
Pro-fax	RP435T	C:A	55	3900	135000	1.2	165	No	C, A, S, V	Housewares	High impact, clarified, contact Product Safety for FDA Compliance
Pro-fax	RP382U	C:A	80	4000	135000	0.8	172	No	C, A, V	Clear Containers, Multi Media Packaging	High flow, moderate clarity

Polypropylenes - US Customary Units

Within each section, grades are listed in order of increasing melt flow rate (MFR)

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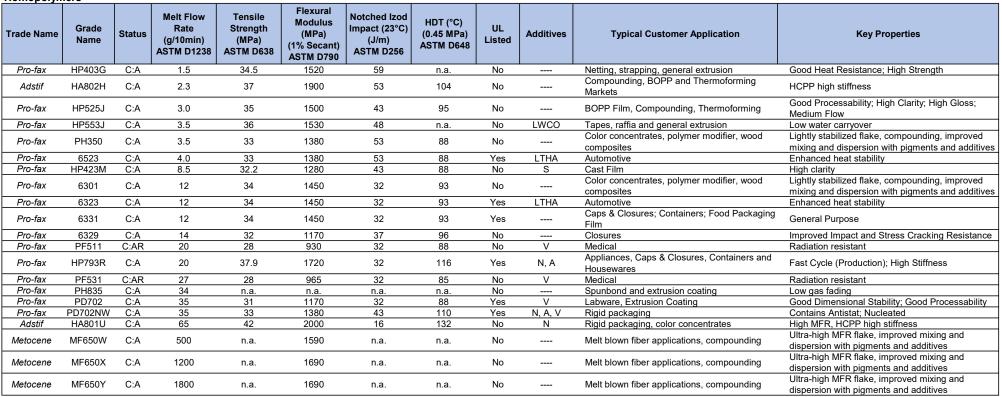
Impact Copo	olymers										
Trade Name	Grade Name	Status	Melt Flow Rate (g/10min) ASTM D1238	Tensile Strength (psi) ASTM D638	Flexural Modulus (psi) (1% Secant) ASTM D790	Notched Izod Impact (73°F) (ft-lbs/in) ASTM D256	HDT (°F) (66 psi) ASTM D648	UL Listed	Additives	Typical Customer Application	Key Properties
Pro-fax	7823	C:A	0.45	4100	180000	N.B.	185	Yes	LTHA	Automotive	High impact, enhanced heat stability
Pro-fax	SV258	C:A	1.2	4100	180000	3.9	180	Yes		Corrugated board, profiles, thermoforming	High Impact
Petrothene	PP1510PC	C:A	1.3	n.a.	n.a.	n.a.	n.a.	No	WC	Natural jacket base resin	
Pro-fax	7624	C:AR	1.4	4100	175000	2.7	180	Yes	LTHA	Tubing, thermoforming	Good Dimensional Stability; Good Heat Aging Resistance; Low Temperature Impact Resistance
Pro-fax	SV152	C:A	1.4	3500	165000	N.B.	195	No	N, LTHA	Automotive	Very high impact
Pro-fax	8623	C:A	1.5	3400	150000	N.B.	170	Yes	LTHA	Automotive	Very high impact, enhanced heat stability
Pro-fax	SD183	C:AR	1.5	4000	175000	2.8	175	Yes	LTHA	Sheet and Profile Extrusion, Thermoforming	Medium impact
Pro-fax	EP611H	C:A	1.8	4100	205000	2.8	187	No		Corrugated board, sheet extrusion	Excellent stiffness / impact balance
Pro-fax	EP713H	C:A	1.8	4300	220000	4.0	223	No	N	Opaque Cups and Containers, Retort Containers, Freezer Impact	Excellent stiffness / impact balance
Pro-fax	EP713HA	C:A	1.8	4300	220000	4	223	No	A, N	Opaque Cups and Containers, Retort Containers, Freezer Impact	Excellent stiffness / impact balance
Pro-fax	EP315J	C:A	2.6	3200	150000	n.a.	n.a.	No	WC	W&C Primary Insulation and Jacketing Resin	Metal deactivator
Pro-fax	7523	C:A	4.0	4100	180000	1.6	180	Yes	LTHA	Automotive	Medium impact, enhanced heat stability
Pro-fax	7531	C:A	4.0	4100	180000	1.6	180	No		Retort Containers, Lids	Medium impact
Pro-fax	8523	C:A	4.0	3100	140000	N.B.	165	Yes	LTHA	Automotive	Very high impact, enhanced heat stability
Pro-fax	SC204	C:A	4.0	4800	230000	1.8	235	No	N, A	Opaque Cups and Containers	Medium impact
Pro-fax	EP495K	C:AR	4.0	3400	160000	N.B.	215	No	N,A,LTHA	Crates, Pallets	Medium stiffness, Very high impact
Pro-fax	EP714K	C:A	4.0	4900	230000	1.5	239	No	N	Medium impact, thermoforming and sheet applications	Good Stiffness; High Heat Resistance
Pro-fax	SB912	C:A	6.0	4700	220000	1.4	235	No	N, A, S, V	Closures	High stiffness / impact balance
Pro-fax	SB786	C:AR	8.0	3700	160000	1.6	175	Yes	LTHA	Automotive	Medium impact, low blush
Pro-fax	EP445P	C:A	18	3300	170000	3.2	221	No	N, A, S	Industrial pails, rigid packaging	Good stiffness / impact balance
Pro-fax	SG702	C:A	18	3000	150000	N.B.	183	Yes		Automotive, Containers, Sports, Leisure, & Toys	Excellent stiffness / impact balance
Pro-fax	SG722	C:A	25	3300	150000	N.B.	210	Yes	N, A, S, V	Sports, Leisure, & Toys, Housewares, Containers	High flow, high impact, high gloss
Pro-fax	EP390S	C:A	35	2900	130000	2.8	181	Yes	V	Packaging	High impact, high flow
Pro-fax	SB891	C:A	35	3800	180000	1.0	195	Yes		Automotive	Medium impact
Pro-fax	SD242	C:A	35	4100	210000	0.9	235	Yes	N	Automotive	Medium impact
Pro-fax	SG802N	C:A	35	3100	160000	2.3	219	Yes	N, V	Automotive	High MFR, high stiffness / impact balance
Pro-fax	SG899	C:A	35	3100	155000	3.9	210	No	N, V	Automotive interior parts	High MFR, high stiffness / impact balance
Pro-fax	SV954	C:A	35	4000	210000	0.9	235	No	N, A, S	Caps & Closures, Containers	Good mold release / lubricity
Pro-fax	SV956	C:A	35	4600	230000	0.8	240	Yes	N, A, S	Caps & Closures, Containers	High mold release / lubricity, high stiffness
Pro-fax	EP348T	C:A	50	3100	160000	2.3	219	No	N, A, V	Containers, thin wall injection molding	High flow, high impact
Pro-fax	EP494T	C:A	50	3500	170000	1.7	232	No	N,A,S	Opaque Containers, Sports, Leisure and Toys	High flow, good stiffness / impact balance
Pro-fax	EP349U	C:A	80	3100	155000	2.2	212	No	N, A, V	Packaging and houseware applications	High flow
Pro-fax	EP549U	C:A	80	3500	180000	1.7	226	No	N, A, V	Containers, rigid packaging	High flow, good stiffness / impact balance
Pro-fax	EP545U	C:A	80	3500	180000	1.7	226	No	N, S, A, V	Containers, rigid packaging	High flow, good stiffness / impact balance
Pro-fax	EP501V	C:A	100	3800	190000	0.8	210	No		Compounding	Lightly stabilized
Pro-fax	SC973	C:A	107	4100	215000	0.6	240	No	N, A, S	Thin wall injection molding	Very high MFR
Pro-fax	SC973Y	C:A	107	3800	205000	0.7	243	No	N, A	Thin wall injection molding	Higher impact version of SC973

Polypropylenes - SI Units

Within each section, grades are listed in order of increasing melt flow rate (MFR)

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Homopolymers





Polypropylenes - SI Units

Within each section, grades are listed in order of increasing melt flow rate (MFR)

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Random Copolymers

Trade Name	Grade Name	Status	Melt Flow Rate (g/10min) ASTM D1238	Tensile Strength (MPa) ASTM D638	Flexural Modulus (MPa) (1% Secant) ASTM D790	Notched Izod Impact (23°C) (J/m) ASTM D256	HDT (°C) (0.45 MPa) ASTM D648	UL Listed	Additives	Typical Customer Application	Key Properties
Pro-fax	RP311H	C:A	1.9	27.9	1030	215	80	No	N, A	Blow molding and thermoforming	Non-clarified
Pro-fax	SR257M	C:A	1.9	30	965	370	74	No	C, A	Packaging, Bottles, Clear Containers	Excellent clarity
Pro-fax	RP512H	C:A	2.0	28	1030	370	74	No	C, A	Blow molding, Thermoforming	Clarified
Pro-fax	RP913J	C:A	3.5	37	1590	59	109	No	С	Cups and Containers	High clarity
Pro-fax	RP223L	C:A	7.0	26.2	896	51	79	No		Bags & Pouches; Breathable Film; Film Wrap; Food Packaging; Heavy Duty Packaging; Hygiene Film; Packaging Foam, and other Foam Applications; Stationery Film; Twist Wrap Film	Foamable; Good Heat Seal; Good Optical Properties; Good Processability; Medium Flow
Pro-fax	RP323M	C:A	8.0	24.8	830	64	75	No	V	Cast Film	Barefoot
Pro-fax	SR549M	C:A	11	30	1030	64	77	No	C, A	ISBM bottles, Injection molded containers	Clarified
Pro-fax	RP548N	C:A	11	28	1000	64	82	No	N, A	Caps & Closures, Containers	Low warpage
Pro-fax	RP320N	C:A	12	28	930	48	77	No		Cast film, foam beads, Extrusion Coating	Heat weldability
Pro-fax	RP491S	C:A	35	26.2	930	59	85	No	N, A, V	Sharps containers	Moderate clarity
Pro-fax	RP735S	C:AR	38	26.9	965	69	74	No	C, A, S, V	Housewares	High impact, clarified
Pro-fax	RP448S	C:A	40	28	1000	43	83	No	C, A	Clear containers, Housewares, Sports, Leisure & Toys	High flow, clarified
Pro-fax	RP435T	C:A	55	26.9	930	65	74	No	C, A, S, V	Housewares	High impact, clarified, contact Product Safety for FDA Compliance
Pro-fax	RP382U	C:A	80	28	930	43	78	No	C, A, V	Clear Containers, Multi Media Packaging	High flow, moderate clarity

Polypropylenes - SI Units

Within each section, grades are listed in order of increasing melt flow rate (MFR)

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Impact Cop	olymers										
Trade Name	Grade Name	Status	Melt Flow Rate (g/10min) ASTM D1238	Tensile Strength (MPa) ASTM D638	Flexural Modulus (MPa) (1% Secant) ASTM D790	Notched Izod Impact (23°C) (J/m) ASTM D256	HDT (°C) (0.45 MPa) ASTM D648	UL Listed	Additives	Typical Customer Application	Key Properties
Pro-fax	7823	C:A	0.45	28	1240	N.B.	85	Yes	LTHA	Automotive	High impact, enhanced heat stability
Pro-fax	SV258	C:A	1.2	28	1240	208	82	Yes		Corrugated board, profiles, thermoforming	High Impact
Petrothene	PP1510PC	C:A	1.3	n.a.	n.a.	n.a.	n.a.	No	WC	Natural jacket base resin	
Pro-fax	7624	C:AR	1.4	28	1210	144	82	Yes	LTHA	Tubing, thermoforming	Good Dimensional Stability; Good Heat Aging Resistance; Low Temperature Impact Resistance
Pro-fax	SV152	C:A	1.4	24	1140	N.B.	95	No	N, LTHA	Automotive	Very high impact
Pro-fax	8623	C:A	1.5	23	1030	N.B.	77	Yes	LTHA	Automotive	Very high impact, enhanced heat stability
Pro-fax	SD183	C:AR	1.5	28	1210	150	79	Yes	LTHA	Sheet and Profile Extrusion, Thermoforming	Medium impact
Pro-fax	EP611H	C:A	1.8	28	1410	150	86	No		Corrugated board, sheet extrusion	Excellent stiffness / impact balance
Pro-fax	EP713H	C:A	1.8	30	1520	294	106	No	N	Opaque Cups and Containers, Retort Containers, Freezer Impact	Excellent stiffness / impact balance
Pro-fax	EP713HA	C:A	1.8	30	1520	294	106	No	A. N	Opaque Cups and Containers, Retort Containers, Freezer Impact	Excellent stiffness / impact balance
Pro-fax	EP315J	C:A	2.6	22	1030	n.a.	n.a.	No	WC	W&C Primary Insulation and Jacketing Resin	Metal deactivator
Pro-fax	7523	C:A	4.0	28	1240	85	82	Yes	LTHA	Automotive	Medium impact, enhanced heat stability
Pro-fax	7531	C:A	4.0	28	1240	85	82	No		Retort Containers, Lids	Medium impact
Pro-fax	8523	C:A	4.0	21	965	N.B.	74	Yes	LTHA	Automotive	Very high impact, enhanced heat stability
Pro-fax	SC204	C:A	4.0	33	1590	96	113	No	N, A	Opaque Cups and Containers	Medium impact
Pro-fax	EP495K	C:AR	4.0	23.5	1100	N.B.	102	No	N,A,ĹTHA	Crates, Pallets	Medium stiffness, Very high impact
Pro-fax	EP714K	C:A	4.0	34	1590	80	115	No	N	Medium impact, thermoforming and sheet applications	Good Stiffness; High Heat Resistance
Pro-fax	SB912	C:A	6.0	32	1520	75	113	No	N, A, S, V	Closures	High stiffness / impact balance
Pro-fax	SB786	C:AR	8.0	26	1100	85	79	Yes	LTHA	Automotive	Medium impact, low blush
Pro-fax	EP445P	C:A	18	23	1170	170	105	No	N. A. S	Industrial pails, rigid packaging	Good stiffness / impact balance
Pro-fax	SG702	C:A	18	20	1030	N.B.	84	Yes		Automotive, Containers, Sports, Leisure, & Tovs	Excellent stiffness / impact balance
Pro-fax	SG722	C:A	25	23	1030	N.B.	99	Yes	N. A. S. V	Sports, Leisure, & Toys, Housewares, Containers	High flow, high impact, high gloss
Pro-fax	EP390S	C:A	35	20	900	149	83	Yes	V	Packaging	High impact, high flow
Pro-fax	SB891	C:A	35	26	1240	53	91	Yes		Automotive	Medium impact
Pro-fax	SD242	C:A	35	28	1450	48	113	Yes	N	Automotive	Medium impact
Pro-fax	SG802N	C:A	35	21	1100	123	104	Yes	N. V	Automotive	High MFR, high stiffness / impact balance
Pro-fax	SG899	C:A	35	21	1070	208	99	No	N. V	Automotive interior parts	High MFR, high stiffness / impact balance
Pro-fax	SV954	C:A	35	28	1450	48	113	No	N. A. S	Caps & Closures, Containers	Good mold release / lubricity
Pro-fax	SV956	C:A	35	32	1590	43	116	Yes	N, A, S	Caps & Closures, Containers	High mold release / lubricity, high stiffness
Pro-fax	EP348T	C:A	50	21	1090	123	104	No	N, A, V	Containers, thin wall injection molding	High flow, high impact
Pro-fax	EP494T	C:A	50	24	1170	91	111	No	N,A,S	Opaque Containers, Sports, Leisure and Toys	High flow, good stiffness / impact balance
Pro-fax	EP349U	C:A	80	21	1070	117	100	No	N, A, V	Packaging and houseware applications	High flow
Pro-fax	EP549U	C:A	80	24	1240	91	108	No	N, A, V	Containers, rigid packaging	High flow, good stiffness / impact balance
Pro-fax	EP545U	C:A	80	24	1240	91	108	No	N, S, A, V	Containers, rigid packaging	High flow, good stiffness / impact balance
Pro-fax	EP501V	C:A	100	26	1310	43	99	No		Compounding	Lightly stabilized
Pro-fax	SC973	C:A	107	28	1480	32	116	No	N, A, S	Thin wall injection molding	Very high MFR
Pro-fax	SC973Y	C:A	107	26	1410	37	117	No	N, A	Thin wall injection molding	Higher impact version of SC973
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