

Consumer goods

Polyethylene - Blow molding

Grades are listed in order of resin type, then increasing melt index

Trade name	Grade name	Resin type	Melt index (2.16 kg, 190°C) (g/10min)	Density (g/cc)	Typical customer application
Petrothene	LP500200	HDPE	0.20	0.946	High ESCR
Petrothene	LB500302	HDPE	0.30	0.949	ESCR
Petrothene	LR732002	HDPE	0.30	0.953	HIC
Petrothene	LR732033	HDPE	0.30	0.953	HIC, Food Grade Antistat
Petrothene	LT602902	HDPE	0.30	0.960	Extrusion blow molding, sheet and profile extrusion
Hyperzone	HY55430	HDPE	0.30	-	HIC, Personal Care, Enhanced ESCR
Hyperzone	HY55430S	HDPE	0.30	-	HIC, Personal Care, Synthetic Antistat
Alathon	L5440	HDPE	0.35	0.954	HIC
Alathon	L5840	HDPE	0.35	0.958	HIC
Petrothene	LB560402	HDPE	0.35	0.952	HIC
Petrothene	LT523502	HDPE	0.35	0.952	ESCR
Petrothene	LT523533	HDPE	0.35	0.952	ESCR, Food Grade Antistat
Petrothene	LT543522	HDPE	0.35	0.954	Stiffness, ESCR Balance, Synthetic Antistat
Petrothene	LT573502	HDPE	0.35	0.957	High Stiffness
Petrothene	LT543502	HDPE	0.35	0.954	Stiffness, ESCR Balance
Petrothene	LT523522	HDPE	0.35	0.952	ESCR
Petrothene	LR734002	HDPE	0.38	0.953	HIC
Petrothene	LR734022	HDPE	0.38	0.953	HIC, Synthetic Antistat
Petrothene	LR734046	HDPE	0.38	0.953	HIC, Core Rod Release for Injection Blow Molding
Alathon	L5040	HDPE	0.40	0.949	Bottles for Industrial use. High ESCR
Alathon	L5876	HDPE	0.74	0.956+	High Gloss Containers
Petrothene	LB501031	HDPE	11.5 (HLM)	0.949	Large Part Blow Molding
Petrothene	LP510034	HDPE	11.5 (HLM)	0.950	Jerry Cans
Petrothene	NA940000	LDPE	0.25	0.918	Squeeze bottles, toys
Petrothene	NA980000	LDPE	0.25	0.920	High melt strength blow mold tubing
Petrothene	NA963083	LDPE	0.7	0.919	General purpose, high impact applications
Petrothene	NA960000	LDPE	1.0	0.920	General purpose
Petrothene	NA814000	LDPE	1.3	0.919	General purpose
Petrothene	NA967000	LDPE	1.6	0.919	General purpose, Industrial Packaging
Petrothene	NA951000	LDPE	2.2	0.920	Flexible bottles
Petrothene	NA324009	LDPE	3.0	0.931	Flexible containers, squeeze bottles, toys, high gloss overlayer

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Consumer goods

Polyethylene - Extrusion coating

Grades are listed in order of resin type, then increasing melt index

Trade name	Grade name	Resin type	Melt index (2.16 kg, 190°C) (g/10min)	Base resin density (g/cc)	Typical customer application
<i>Alathon</i>	H6018	HDPE	18	0.960	Dry blend with LDPE
<i>Petrothene</i>	NA216000	LDPE	3.7	0.923	Flexible packaging, milk cartons and food boards
<i>Petrothene</i>	NA217000	LDPE	5.6	0.923	Flexible packaging, paperboard and industrial papers
<i>Petrothene</i>	NA204000	LDPE	7.0	0.918	General purpose flexible packaging and laminating
<i>Petrothene</i>	NA214000	LDPE	10	0.918	General purpose flexible packaging and laminating
<i>Petrothene</i>	NA219000	LDPE	10	0.923	Flexible packaging, milk cartons and food boards
<i>Petrothene</i>	NA206000	LDPE	13.5	0.918	Flexible packaging, sugar pouches, industrial and multi-wall bags
<i>Petrothene</i>	NA205000	LDPE	16	0.918	Flexible packaging, sugar pouches, industrial and multi-wall bags

Polyethylene - Film

Grades are listed in order of fabrication process, resin type, then increasing melt index

Fabrication process	Trade name	Grade name	Resin type	Melt index (2.16 kg, 190°C) (g/10min)	Base resin density (g/cc)	Slip (ppm)	Antiblock (ppm)	Typical customer application
Cast Film	<i>Alathon</i>	H6018	HDPE	18	0.960	-	-	Cast Film
Cast Film	<i>Petrothene</i>	NA338202	LDPE	6.2	0.923	2800	3100	High clarity, household film and other applications
Film Extrusion	<i>Petrothene</i>	NA942094	LDPE	0.18	0.918	550	4000	Heavy Duty Packaging / Shrink
Film Extrusion	<i>Lupolen</i>	2221D	LDPE	0.25	0.922	-	-	Heavy Duty Packaging / Shrink
Film Extrusion	<i>Petrothene</i>	NA303013	LDPE	0.25	0.922	-	-	Heavy Duty Packaging / Shrink
Film Extrusion	<i>Petrothene</i>	NA303212	LDPE	0.25	0.922	-	2000	Heavy Duty Packaging / Shrink
Film Extrusion	<i>Petrothene</i>	NA940000	LDPE	0.25	0.918	-	-	Heavy Duty Packaging / Shrink
Film Extrusion	<i>Petrothene</i>	NA940085	LDPE	0.25	0.918	-	4000	Heavy Duty Packaging / Shrink
Film Extrusion	<i>Petrothene</i>	NA940094	LDPE	0.25	0.918	500	4000	Heavy Duty Packaging / Shrink
Film Extrusion	<i>Petrothene</i>	NA980000	LDPE	0.25	0.920	-	-	Heavy Duty Packaging / Shrink
Film Extrusion	<i>Petrothene</i>	NA983085	LDPE	0.25	0.920	-	4000	Heavy Duty Packaging / Shrink
Film Extrusion	<i>Petrothene</i>	L3035	LDPE	0.4	0.929	-	-	Clarity Shrink
Film Extrusion	<i>Petrothene</i>	NA963083	LDPE	0.7	0.919	-	4000	Liners
Film Extrusion	<i>Lupolen</i>	2221F	LDPE	0.8	0.922	-	-	Clarity
Film Extrusion	<i>Petrothene</i>	NA305212	LDPE	0.8	0.922	-	2000	Clarity Shrink
Film Extrusion	<i>Petrothene</i>	NA960000	LDPE	1.0	0.920	-	-	Liners
Film Extrusion	<i>Petrothene</i>	NA960070	LDPE	1.0	0.920	500	1500	Liners
Film Extrusion	<i>Petrothene</i>	NA960183	LDPE	1.0	0.919	-	4000	Liners
Film Extrusion	<i>Petrothene</i>	NA271009	LDPE	1.2	0.930	-	-	Film overwrap applications
Film Extrusion	<i>Petrothene</i>	NA345013	LDPE	1.8	0.921	-	-	Clarity
Film Extrusion	<i>Petrothene</i>	NA345184	LDPE	1.8	0.921	-	1500	Clarity

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Polyethylene - Film

Grades are listed in order of fabrication process, resin type, then increasing melt index

Fabrication process	Trade name	Grade name	Resin type	Melt index (2.16 kg, 190°C) (g/10min)	Base resin density (g/cc)	Slip (ppm)	Antiblock (ppm)	Typical customer application
Film Extrusion	<i>Petrothene</i>	NA345196	LDPE	1.8	0.921	750	1500	Clarity
Film Extrusion	<i>Lupolen</i>	2220H	LDPE	2.0	0.922	-	-	Clarity
Film Extrusion	<i>Petrothene</i>	NA321013	LDPE	2.0	0.922	-	-	Clarity
Film Extrusion	<i>Petrothene</i>	NA321210	LDPE	2.0	0.922	750	1000	Clarity
Film Extrusion	<i>Petrothene</i>	NA952000	LDPE	2.0	0.919	-	-	Liners
Film Extrusion	<i>Petrothene</i>	NA952094	LDPE	2.0	0.919	500	4000	Liners
Film Extrusion	<i>Petrothene</i>	NA951000	LDPE	2.2	0.920	-	-	Liners
Film Extrusion	<i>Petrothene</i>	NA324244	LDPE	3.0	0.931	1600	6000	Film overwrap applications
Film Extrusion	<i>Petrothene</i>	NA373244	LDPE	3.0	0.924	1600	6000	Clarity
Film Extrusion	<i>Lupolen</i>	2227K	LDPE	4.0	0.922	750	900	Clarity
Film Extrusion	<i>Petrothene</i>	NA334000	LDPE	6.0	0.919	-	-	Garment
Film Extrusion	<i>Petrothene</i>	NA285003	LDPE	6.2	0.930	-	-	Film overwrap applications
Film Extrusion	<i>Petrothene</i>	NA336149	LDPE	6.5	0.920	1350	4000	Garment

Polyethylene - Film EVA

Grades are listed in order of increasing %VA

Fabrication process	Trade name	Grade name	Resin type	Melt index (2.16 kg, 190°C) (g/10min)	Base resin density (g/cc)	% VA	Slip (ppm)	Antiblock (ppm)	Typical customer application
Film Extrusion	<i>Petrothene</i>	NA340013	EVA	1.0	-	4.0	-	-	Clarity
Film Extrusion	<i>Petrothene</i>	NA443023	EVA	1.2	0.927	4.5	-	-	Clarity EVA
Film Extrusion	<i>Petrothene</i>	NA490177	EVA	0.30	0.923	4.5	-	6000	Heavy Duty Packaging
Film Extrusion	<i>Petrothene</i>	NA442051	EVA	1.5	-	5.00	500	1000	Clarity EVA
Film Extrusion	<i>Petrothene</i>	NA350136	EVA	1.2	-	6.6	800	4000	Clarity
Film Extrusion	<i>Petrothene</i>	NA362005	EVA	0.50	0.926	6.6	-	-	Heavy Duty Packaging, Ice Bags, EVA
Film Extrusion	<i>Ultrathene</i>	UE650028	EVA	3.0 (EMI)	-	12	-	-	Film Extrusion, Foam
Film Extrusion	<i>Ultrathene</i>	UE672006	EVA	0.50	-	13.5	-	-	Flexible packaging films for food and healthcare, liquid and heavy duty packaging and pallet stretch film
Film Extrusion	<i>Ultrathene</i>	UE672102	EVA	0.45	-	13.5	2100	6300	Flexible packaging films for food and healthcare, liquid and heavy duty packaging and pallet stretch film
Film Extrusion	<i>Ultrathene</i>	UE672317	EVA	0.45	-	13.5	-	15000	Flexible packaging films for food and healthcare, liquid and heavy duty packaging and pallet stretch film
Film Extrusion	<i>Ultrathene</i>	UE624000	EVA	2.1 (EMI)	-	18	-	-	Medium to heavy gauge film, injection and blow molding, foam
Film Extrusion, Profile Extrusion	<i>Petrothene</i>	NA426225	EVA	2.5	0.924	2.5	1000	1900	Clarity EVA
Film Extrusion, Profile Extrusion	<i>Petrothene</i>	NA420013	EVA	2.5	0.923	2.5	-	-	Clarity EVA

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Polyethylene - Injection molding

Grades are listed in order of resin type, then increasing melt index

Trade name	Grade name	Resin type	Melt index (2.16 kg, 190°C) (g/10min)	Base resin density (g/cc)	Typical customer application
Alathon	M5352	HDPE	4.5	0.953	Pails
Alathon	M5372	HDPE	6.9	0.953	Pails
Alathon	M6080	HDPE	7.9	0.960	Case, Crates & Pallets
Alathon	M6080UV	HDPE	7.9	0.960	Case, Crates & Pallets
Alathon	H5112	HDPE	12	0.951	Housewares, Caps & Closures
Alathon	H6011	HDPE	12	0.960	Case, Crates & Pallets
Alathon	H6017	HDPE	18	0.960	Specialty, Containers, Lids, Overcaps
Alathon	H5220	HDPE	20	0.952	Housewares, Caps & Closures
Alathon	H5520	HDPE	20	0.955	Housewares, Caps & Closures
Alathon	H5650	HDPE	50	0.956	Caps & Closures, TWIM Food Containers
Petrothene	NA345009	LDPE	1.8	0.921	Flexible bottles, caps, closures
Petrothene	GA625189	LLDPE	5.0	0.935	Caps & Closures
Petrothene	GA564189	LLDPE	20	0.924	Housewares, compounding
Petrothene	GA574189	LLDPE	50	0.926	Thin wall, lids

Polyethylene - Rotomolding

Grades are listed in order of resin type, then increasing melt index

Trade name	Grade name	Resin type	Melt index (2.16 kg, 190°C) (g/10min)	Base resin density (g/cc)	Typical customer application	Key properties
Microthene	MP652962	HDPE	2.0	0.942	Large Tanks	Powder version of base resin: GA652962, UVI (UV12)
Microthene	MP652060	HDPE	2.0	0.942	Large Tanks	Powder version of base resin: GA652060, UVI (UV20)
Petrothene	GA652962	HDPE	2.0	0.942	Large Tanks	UVI (UV12)
Petrothene	GA652060	HDPE	2.0	0.942	Large Tanks	UVI (UV20)
Microthene	MP643962	LLDPE	3.6	0.9395	Playground Equipment, Drums, Storage Containers, Trash Bins	Powder version of base resin: GA643962, UVI (UV12)
Microthene	MP643060	LLDPE	3.6	0.9395	Playground Equipment, Drums, Storage Containers, Trash Bins	Powder version of base resin: GA643060, UVI (UV20)
Petrothene	GA643962	LLDPE	3.6	0.9395	Playground Equipment, Drums, Storage Containers, Trash Bins	UVI (UV12)
Petrothene	GA643060	LLDPE	3.6	0.9395	Playground Equipment, Drums, Storage Containers, Trash Bins	UVI (UV20)
Microthene	MP625962	LLDPE	5.0	0.935	Toys, Playground Equipment, Drums, Storage Containers	Powder version of base resin: GA625962, UVI (UV12)
Microthene	MP625060	LLDPE	5.0	0.935	Toys, Playground Equipment, Drums, Storage Containers	Powder version of base resin: GA625060, UVI (UV20)
Petrothene	GA625962	LLDPE	5.0	0.935	Toys, Playground Equipment, Drums, Storage Containers	UVI (UV12)
Petrothene	GA625060	LLDPE	5.0	0.935	Toys, Playground Equipment, Drums, Storage Containers	UVI (UV20)
Microthene	MP635962	LLDPE	6.7	0.935	Toys, Playground Equipment, Drums, Storage Containers	Powder version of base resin: GA635962, UVI (UV8)
Microthene	MP635060	LLDPE	6.7	0.935	Toys, Playground Equipment, Drums, Storage Containers	Powder version of base resin: GA635060, UVI (UV20)
Petrothene	GA635962	LLDPE	6.7	0.935	Toys, Playground Equipment, Drums, Storage Containers	UVI (UV8)
Petrothene	GA635060	LLDPE	6.7	0.935	Toys, Playground Equipment, Drums, Storage Containers	UVI (UV20)

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Polyethylene - Sheet and profile extrusion

Grades are listed in order of resin type, then increasing melt index

Trade name	Grade name	Resin type	Melt index (2.16 kg, 190°C) (g/10min)	Base resin density (g/cc)	Typical customer application
Petrothene	LR732002	HDPE	0.30	0.953	Sheet/EXT
Petrothene	LT602902	HDPE	0.30	0.960	Extrusion blow molding, sheet and profile extrusion
Petrothene	LB560402	HDPE	0.35	0.952	Sheet/EXT
Petrothene	LT606932	HDPE	0.70	0.960	Sheet, profile extrusion
Petrothene	LP510034	HDPE	11.5 (HLMI)	0.950	Sheet, Structural Parts, HLMI
Petrothene	NA149000	LDPE	4.0	0.919	Foamed parts

Polypropylene

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

Trade name	Grade name	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
Homopolymers										
Pro-fax	HP525J	3.0	5100	218000	0.8	203	No		BOPP Film, Compounding, Thermoforming	Good Processability; High Clarity; High Gloss; Medium Flow
Pro-fax	PH350	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	4.0	4800	200000	1.0	190	Yes	LTHA	Automotive, Sheet, Thermoforming	Enhanced heat stability
Pro-fax	HP423M	8.5	4680	185000	0.9	190	No	S	Cast Film	High clarity
Pro-fax	6301	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	6329	14	4600	170000	0.7	205	No		Closures	Improved Impact and Stress Cracking Resistance
Pro-fax	PH835	34	n.a.	n.a.	n.a.	n.a.	No		Spunbond and extrusion coating	Low gas fading
Pro-fax	PD702NW	35	4800	200000	0.8	230	Yes	N, A	Rigid packaging	Contains Antistat; Nucleated
Pro-fax	HP659S	35	n.a.	n.a.	n.a.	n.a.	No		Spunbond and extrusion coating, rigid packaging, high stiffness	Low gas fading
Metocene	MF650W	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	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	1800	2800	245000	n.a.	252	No		Melt blown fiber applications, compounding	Ultra-high MFR flake, improved mixing and dispersion with pigments and additives

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Polypropylene

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

Trade name	Grade name	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
Impact Copolymers										
Pro-fax	SV258	1.2	4100	180000	3.9	180	Yes		Corrugated board, profiles, thermoforming	High Impact
Pro-fax	8623	1.5	3400	150000	N.B.	170	Yes	LTHA	Automotive, Sheet, Extrusion	Very high impact, enhanced heat stability
Pro-fax	EP611H	1.8	4100	205000	2.8	187	No		Corrugated board, Sheet Extrusion, Cast Film	Excellent stiffness / impact balance
Pro-fax	7531	4.0	4100	180000	1.6	180	No		Thermoforming, Retort Containers, Lids	Medium impact
Pro-fax	EP495K	4.0	3400	160000	N.B.	215	No	N,A,LTHA	Crates, Pallets	Medium stiffness, Very high impact
Pro-fax	SC204	4.0	4800	230000	1.8	235	No	N, A	Thermoforming	Medium impact
Pro-fax	EP445P	18	3300	170000	3.2	221	No	N, A, S	Industrial pails, rigid packaging	Good stiffness / impact balance
Pro-fax	SG702	18	3000	150000	N.B.	183	Yes		Automotive, Containers, Sports, Leisure, & Toys	Excellent stiffness / impact balance
Pro-fax	EP648R	23	3560	200000	1.8	226	No	N, A	Consumer Products; Rigid packaging	High stiffness, Medium impact
Pro-fax	SG722	25	3300	150000	N.B.	210	Yes	N, A, S	Sports, Leisure, & Toys, Housewares, Containers	High flow, high impact, high gloss
Pro-fax	EP390S	35	2900	130000	2.8	181	Yes		Packaging	High impact, high flow
Pro-fax	SB891	35	3800	180000	1.0	195	No		Automotive	Medium impact
Pro-fax	SD242	35	4100	210000	0.9	235	Yes	N	Automotive	Medium impact
Pro-fax	SG802N	35	3100	160000	2.3	219	Yes	N	Automotive	High MFR, high stiffness / impact balance
Pro-fax	EP348T	50	3100	160000	2.3	219	No	N, A	Containers, thin wall injection molding	High flow, high impact
Pro-fax	EP494T	50	3500	170000	1.7	232	No	N,A,S	Opaque Containers, Sports, Leisure and Toys	High flow, high gloss, good stiffness / impact balance
Pro-fax	EP349U	80	3100	155000	2.2	212	No	N, A	Packaging and houseware applications	High flow
Random Copolymers										
Pro-fax	RP311H	2.0	4100	150000	4.0	176	No	N, A	Blow molding	Non-clarified
Pro-fax	SR257M	2.0	4300	140000	7.0	165	No	C, A	Packaging, Bottles, Clear Containers	Excellent clarity
Pro-fax	RP512H	2.0	4100	150000	7.0	165	No	C, A	Blow molding, Thermoforming	Clarified
Pro-fax	RP944H	2.4	5300	230000	1.3	-	No	C	Thermoforming, cups and containers, sheet extrusion	Good clarity
Pro-fax	RP913J	3.5	5300	230000	1.1	228	No	C	Cups and Containers, thermoforming, sheet	High clarity
Pro-fax	RP223L	7.0	3800	130000	1.0	174	No		Bags & Pouches; Breathable Film; Film Wrap; Food Packaging; Heavy Duty Packaging; Hygiene Film; Stationery Film; Twist Wrap Film	Good Heat Seal; Good Optical Properties; Good Processability; Medium Flow
Pro-fax	RP323M	8.0	3600	120000	1.2	167	No		Cast Film	Barefoot
Pro-fax	RP320N	12	4000	135000	0.9	170	No		Cast film, foam beads, Extrusion Coating	Heat weldability
Pro-fax	RP735S	38	3900	140000	1.3	165	No	C, A, S	Housewares	High impact, clarified
Pro-fax	RP435T	55	3900	135000	1.2	165	No	C, A, S	Housewares	High impact, clarified, contact Product Safety for FDA Compliance

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Consumer goods

Catalloy

Within each section, grades are listed in order of fabrication process, then increasing melt flow rate

Fabrication Process	Trade name	Grade name	Melt Flow Rate (2.16 kg, 230°C) (g/10min) ISO 1133	Flexural Modulus (MPa) ISO 178	Tensile Stress at Break (MPa) ISO 527	Shore D Hardness (15 seconds) ISO 868	HDT (°C) (0.45 Mpa) ISO 75	VICAT (A50, °C) ISO 306	Charpy Notched Impact Strength (23°C) (kJ/m2) ISO 179	Charpy Notched Impact Strength (-20°C) (kJ/m2) ISO 179	Charpy Notched Impact Strength (-40°C) (kJ/m2) ISO 179	Typical Conversion Process(s)	Typical Customer Application
Blow Molding	Adflex	Q 402 F	0.65	480	21	49	57	108	86	3.2	2.2	Blow Film	Flexible Packaging
Blow Molding	Adflex	Q 200 F	0.80	150	13	35	44	76	60	87	2.1	Blow Film, Sheet Extrusion	Flexible Packaging
Blow Molding	Adflex	Q 302 B	0.90	350	10	38	52	67	70	98	3.2	Blow Molding	Tubes, Bottles
Blown Film	Adflex	Q 100 F	0.60	100	10	30	40	60	NB	110	5.0	Blow Film, Calendaring	Flexible Packaging
Blown Film	Adflex	Q 109 F	0.60	100	10	30	40	60	41	107	2.8	Compounding, Blow Film	Automotive, Blow Film
Blown Film	Adflex	Q 401 F	0.65	480	21	49	57	108	86	3.2	2.2	Blow Film	Flexible Packaging
Blown Film	Adflex	Q 402 F	0.65	480	21	49	57	108	86	3.2	2.2	Blow Film	Flexible Packaging
Blown Film	Adflex	Q 200 F	0.80	150	13	35	44	76	60	87	2.1	Blow Film, Sheet Extrusion	Flexible Packaging
Blown Film	Adflex	KS 021 P	0.90	350	10	38	52	67	70	98	3.2	Blow Film, Sheet Extrusion, Compounding	Automotive, Flexible Packaging
Calendaring	Adflex	Q 100 F	0.60	100	10	30	40	60	NB	110	5.0	Blow Film, Calendaring	Flexible Packaging
Calendaring	Adflex	Q 402 F	0.65	480	21	49	57	108	86	3.2	2.2	Blow Film	Flexible Packaging
Calendaring	Adflex	Q 200 F	0.80	150	13	35	44	76	60	87	2.1	Blow Film, Sheet Extrusion	Flexible Packaging
Calendaring	Adflex	KS 021 P	0.90	350	10	38	52	67	70	98	3.2	Blow Film, Sheet Extrusion, Compounding	Automotive, Flexible Packaging
Cast Film	Adflex	X 501 F	7.5	550	22	46	58	94	65	45	5.0	Cast Film, Compounding, Injection Molding	Flexible Packaging
Cast Film	Adflex	X 101 H	8.0	100	10	30	36	55	NB	NB	1.5	Cast Film, Compounding	Flexible Packaging, Bitumen Modification
Cast Film	Adflex	V 109 F	12	80	8	30	35	55	35	5	1.4	Cast Film, Compounding	Flexible Packaging
Cast Film	Adflex	Z 108 S	27	80	6	30	37	53	33	2.8	1.3	Cast Film, Extrusion Coating, Fibers	Flexible Packaging
Cast Film	Adflex	KS 084 P	30	100	13	35	40	53	47	2.8	1.2	Cast Film, Extrusion Coating	Flexible Packaging
Compounding	Adflex	Q 109 F	0.60	100	10	30	40	60	41	107	2.8	Compounding, Blow Film	Automotive, Blow Film
Compounding	Adflex	KS 021 P	0.90	350	10	38	52	67	70	98	3.2	Blow Film, Sheet Extrusion, Compounding	Automotive, Flexible Packaging
Compounding	Adflex	X 501 F	7.5	550	22	46	58	94	65	45	5.0	Cast Film, Compounding, Injection Molding	Flexible Packaging
Compounding	Adflex	X 101 H	8.0	100	10	30	36	55	NB	NB	1.5	Cast Film, Compounding	Flexible Packaging, Bitumen Modification
Compounding	Adflex	V 109 F	12	80	8	30	35	55	35	5	1.4	Cast Film, Compounding	Flexible Packaging
Extrusion Coating	Adflex	Z 108 S	27	80	6	30	37	53	33	2.8	1.3	Cast Film, Extrusion Coating, Fibers	Flexible Packaging
Extrusion Coating	Adflex	KS 084 P	30	100	13	35	40	53	47	2.8	1.2	Cast Film, Extrusion Coating	Flexible Packaging
Fibers	Adflex	Z 108 S	27	80	6	30	37	53	33	2.8	1.3	Cast Film, Extrusion Coating, Fibers	Flexible Packaging
Injection Molding	Adflex	X 501 F	7.5	550	22	46	58	94	65	45	5.0	Cast Film, Compounding, Injection Molding	Flexible Packaging
Injection Molding	Adflex	X 101 H	8.0	100	10	30	36	55	NB	NB	1.5	Cast Film, Compounding	Flexible Packaging, Bitumen Modification
Injection Molding	Adflex	V 109 F	12	80	8	30	35	55	35	5	1.4	Cast Film, Compounding	Flexible Packaging
Injection Molding	Adflex	Z 108 S	27	80	6	30	37	53	33	2.8	1.3	Cast Film, Extrusion Coating, Fibers	Flexible Packaging
Injection Molding	Adflex	KS 084 P	30	100	13	35	40	53	47	2.8	1.2	Cast Film, Extrusion Coating	Flexible Packaging
Sheet and Profile Extrusion	Adflex	Q 402 F	0.65	480	21	49	57	108	86	3.2	2.2	Blow Film	Flexible Packaging
Sheet and Profile Extrusion	Adflex	Q 200 F	0.80	150	13	35	44	76	60	87	2.1	Blow Film, Sheet Extrusion	Flexible Packaging
Sheet and Profile Extrusion	Adflex	KS 021 P	0.90	350	10	38	52	67	70	98	3.2	Blow Film, Sheet Extrusion, Compounding	Automotive, Flexible Packaging

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Within each section, grades are listed in order of fabrication process, then increasing melt flow rate

Fabrication Process	Trade name	Grade name	Melt Flow Rate (2.16 kg, 230°C) (g/10min) ISO 1133	Flexural Modulus (MPa) ISO 178	SIT (°C) Internal Method	Tm (°C) Internal Method	HDT (°C) (0.45 Mpa) ISO 75	VICAT (A50, °C) ISO 306	Haze (50 µm) ASTM D1003	Gloss (45°, 50 µm) ASTM D2457	Typical Customer Application
Cast Film	Adsyl	5 C 30 F	5.5	600	105	132	62	111	0.6	88	Flexible Packaging
Cast Film	Adsyl	5 C 37 F	5.5	600	105	132	62	111	1.0	87	Flexible Packaging
Cast Film	Adsyl	7416 XCP	7.5	600	115	133	65	115	0.5	90	Flexible Packaging
Cast Film	Adsyl	6 C 30 F	5.5	500	95	126	59	107	0.6	92	Flexible Packaging
BOPP	Adsyl	5 C 30 F	5.5	600	105	132	62	111	0.6	88	Flexible Packaging
BOPP	Adsyl	5 C 37 F	5.5	600	105	132	62	111	1.0	87	Flexible Packaging
BOPP	Adsyl	7416 XCP	7.5	600	115	133	65	115	0.5	90	Flexible Packaging
BOPP	Adsyl	3 C 30 F HP	5.5	(blank)	112	137	71	122	0.4	91	Flexible Packaging
BOPP	Adsyl	6 C 30 F	5.5	500	95	126	59	107	0.6	92	Flexible Packaging

About us

We are LyondellBasell (LYB) – a leader in the global chemical industry creating solutions for everyday sustainable living. Through advanced technology and focused investments, we are enabling a circular and low carbon economy. Across all we do, we aim to unlock value for our customers, investors and society. As one of the world's largest producers of polymers and a leader in polyolefin technologies, we develop, manufacture and market high-quality and innovative products for applications ranging from sustainable transportation and food safety to clean water and quality healthcare. For more information, please visit www.lyb.com or follow [@LyondellBasell](https://www.linkedin.com/company/lyondellbasell) on LinkedIn.

Abbreviation Information

A	Antistat
AB	Antiblock
C	Clarified
EMI	Estimated Melt Index
ESCR	Environmental Stress Crack Resistance
EXT	Extrusion
HIC	Household & Industrial Chemicals
HLMI	High Load Melt Index (21.6 kg)
ISBM	Injection Stretch Blow Molding
LTHA	Long Term Heat Aging
LWCO	Low Water Carry Over
N	Nucleation
n.a.	Not Applicable
N.B.	No Break
PEX	Crosslinked Polyethylene
S	Slip
TBD	To Be Determined
TWIM	Thin-Walled Injection Molding
UVI	Ultra Violet Index
WC	Wire and Cable Additive package

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