



POLIMAXX
MAKE GREATER THINGS



IRPC

“

Good innovation makes greater things for everyone along with maintaining coexistence balance between human and environment. We will carry out the sustainable solution.

”

DISCLAIMER

The following technical information and data must be considered as a general representation only, and should not be treated or used as full specification purposes. The information herein contained is based upon thoroughly reliable data, however not guaranty with respect to its accuracy where product result is implied, and no liability is assumed. It is the responsibility of the user to verify suitability of the material for their particular usage or purpose. In consideration of various usage conditions of the material and the different production equipment and processing techniques undergoes, IRPC cannot guarantee results in specific instances. Unless otherwise agreed in clear writing, IRPC sells product without warranty, while buyers and users assume all responsibility and liability for loss or damage arising from the handling and consumption of our products, whether processed homogeneously or in combination with other product(s).



IRPC Public Company Limited is Southeast Asia's integrated petrochemical pioneer. The Company operates a refinery and petrochemical complex in Rayong. Its main facilities are located within the IRPC Industrial Park, which features the infrastructure needed for its business, including a deep-sea port, an oil depot, and a power plant

Petrochemical Business

POLIMAXX is a brand of IRPC Petrochemical product line, with capability of producing HDPE, PP, UHMW-PE, ABS, SAN, PS, and EPS. IRPC endeavors to stay abreast on global environmental and technological changes through research and development of new products, e.g. parolene from natural ingredients, recycled compound resin, and acetylene black for Li- ion batteries (Pim-L and Pim-AL). Furthermore, IRPC has pioneered a closed loop production in the Eco Solution project to ensure that no waste would get out of the loop and become a burden to our society and to our fragile environment.



Petroleum Business

The petroleum product line of IRPC is classified into 3 groups: Petroleum Fuel Products, Lube Base Oil, and related products, as well as Aromatic Products.



Supporting Businesses

The Supporting businesses of the company are as follows:

- Power and Public Utilities
- Port and Tank Services
- Asset Management Business





Make Greater Things

POLIMAXX is a brand of IRPC Petrochemical product line. Since IRPC Public Company Limited establishment in 1982, few suppliers in the region has been doing manufacture multiple types of polymer and petrochemical products in-house. Now, over 30 years have passed, while IRPC remain as strongly dedicated to research and develop as ever, to remain on top of rapid changes of market requirements.

Among a diverse range of our product lines, all polymer and petrochemical products would be under the common “POLIMAXX” branding. We, have strategically planned to initiate hybrid marketing, focusing on offering our quality products, and one-stop service solution to our customers. We created POLIMAXX with the intention to “Focus on petrochemical research and development to deliver solutions for customers’ ever-changing needs in the future”.



A product line, focusing on life and health.



A product line, focusing on performance and durability.



A product line, focusing on environment and sustainability.



ABS Powder | Acrylonitrile Butadiene Styrene Powder

GRADE	PROCESSING										INDUSTRY
	Additive Adhesive	Additive Color Pigment	Additive Conductivity	Additive Impact Modifier	Additive Impact Modifier (ABS Compound)	Additive Impact Modifier (PC/ABS Compound)	Additive Impact Modifier (PVC)	Additive Lubo Lubricant	Additive Processing Aid	Comply with food contact*	

AP4500	Further information, please contact IRPC's Sales representative.				▲	▲	●	▲			Additives
AP5000H	Further information, please contact IRPC's Sales representative.				●	●		▲			Additives
AP6007	Further information, please contact IRPC's Sales representative.				●	●		●			Additives

PE Wax | Polyethylene Wax

GRADE	PROCESSING										INDUSTRY
	Additive Adhesive	Additive Camble	Additive Color Pigment	Additive Conductivity	Additive Impact Modifier	Additive Lubo Lubricant	Additive Pigment Dispersion	Additive Plastic Lubricant	Additive Processing Aid	Comply with food contact*	

PE Wax	Further information, please contact IRPC's Sales representative.										Additives
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● = Recommended

▲ = Applicable

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ACB | Acetylene Black

GRADE		PROCESSING										INDUSTRY
		Additive Color Pigment	Additive Conductivity (Dry Cell)	Additive Conductivity (ESD/Semiconductivity)	Additive Conductivity (Lead Battery)	Additive Conductivity (Lithium Battery)	Additive Conductivity (Roof Coating)	Additive Conductivity (Tire Bladder/Rubber)	Additive Processing Aid	Comply with food contact		

AB50	Further information, please contact IRPC's Sales representative.		•										Dry Cell
AB50P	Further information, please contact IRPC's Sales representative.	▲	▲	•		•	•	•					Tire Bladder, Rubber Compound, Color Compound, Lubricant
PIM-AL	Further information, please contact IRPC's Sales representative.			•									Lead Battery
PIM-L	Further information, please contact IRPC's Sales representative.				•								Lithium Battery

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AS/SAN | Acrylonitrile Styrene

GRADE	MFR (200°C/5 kg) ASTM D1238 (g/10 min)	Izod Notched (6.4 mm, 23°C) ASTM D256 (kgf-cm/cm)	HDT (3.2 mm, 18.6 kgf/cm ²) ASTM D648 (°C)	COLOR	Flammability (E132283) UL94 (Thickness, mm)	PROCESSING										INDUSTRY
						Compression Molding	Extrusion Blow Molding	Extrusion Blow Molding	Extrusion Blown Film	Extrusion Cast Film	Extrusion Filament	Extrusion Lamination	Extrusion Pipe/Sheet	Injection Molding	Injection Molding	
General																
120PC	28	32	81	Natural									•	/	Exterior Parts, Interior Parts, Household	
121PC	28	32	81	Blue	HB (15)								•	/	Appliance & Electronic Parts, Exterior & Interior Parts, Household	
129PC	28	32	81	Slightly Blue									•	/	Household, Stationery	
High Flow																
149PC	5.0	3.0	85	Slightly Blue									•		Exterior Parts, Interior Parts	
Compound Grade																
AS103	28			Natural									•		Compound	
250PC	6.0			Natural									•		Compound	
280PC	9.0			Natural									•		Compound	
210HF	13			Natural									•		Compound	
High Chemical Resistance																
308PC	1.6	3.6	88	Natural									•		Lighter	
320PC	1.9	3.4	86	Natural	HB (15)								•		Appliance & Electronic Parts, Lighter	

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EPS | Expandable Polystyrene

GRADE	Bead Size Diameter (mm)	Molding Density Range (g/l)	Silo Time (hr)	Flammability (E132283) UL94 (Thickness, mm)	Flame Retardants DIN 4102-1 (Class)	PROCESSING										INDUSTRY
						Compression Molding	Extrusion Blow Molding	Extrusion Blown Film	Extrusion Cast Film	Extrusion Extruded XPS	Injection Pile/Sheet	Injection Molding	Shape Molding	Shape Molding	Shape Molding	
Standard																
291L	1.00 -1.60 ≥ 98%	14-25	6-12													• / EPS Packaging & Cushion
321F	0.63 - 1.12 ≥ 99%	16-25	6-12													• / EPS Packaging & Cushion
361F	0.40-0.90 ≥ 99%	18-30	6-12													• / EPS Packaging & Cushion
																• / EPS Packaging & Cushion
Self Extinguish (Flame retardant: non-HBCD type)																
277E	1.00 -1.60 ≥ 98%	16-25	6-16	HF-1 (6.5)	B1											• Foam Insulation
377E	0.63-1.12 ≥ 99%	18-30	6-16	HF-1 (6.5)	B1											• Foam Insulation

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HDPE | High Density Polyethylene

GRADE	MFR (190 °C/2.16 kg) ASTM D1238 (g/10 min)	Density ASTM D792 (g/cm ³)	ESCR (Condition B, F50) ASTM D1693 (hr)	Hardness ASTM D2240 (Shore D)	Vicat Softening (3.2 mm, 10 N, 50 °C/h) ASTM D1525 (°C)	PROCESSING										INDUSTRY			
						Compression Molding	Extrusion Blow Molding	Extrusion Blow Molding	Extrusion Blown Film	Extrusion Cast Film	Extrusion Filament	Extrusion Lamination	Extrusion Pipe	Injection Molding	Injection Molding		Injection Stretch Blow Molding	Comply with food contact*	
R1760	6.0	0.957	9	65	125	•											•	/	Household, Container and Pail, Caps and Closures
V1160	15	0.957	3	65	125	•											•	/	Household, Container and Pail, Caps and Closures

PE Compound | Polyethylene Compound

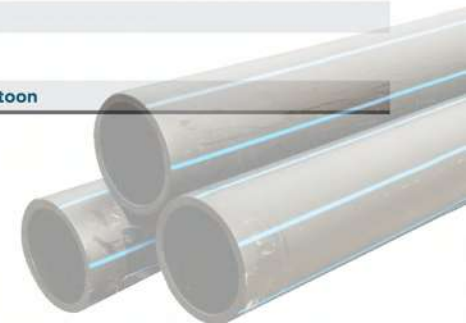
GRADE	MFR (190 °C/5 kg) ISO 1133 (g/10 min)	Density ISO 1183 (g/cm ³)	ESCR (Condition B, F50) ASTM D1693 (hr)	Color	Special Property	PROCESSING										INDUSTRY			
						Compression Molding	Extrusion Blow Molding	Extrusion Blow Molding	Extrusion Blown Film	Extrusion Cast Film	Extrusion Filament	Extrusion Lamination	Extrusion Pipe	Injection Molding	Injection Molding		Injection Stretch Blow Molding	Comply with food contact*	
HDPE Pipe																			
P901BK	0.25	0.959	≥10,000	Black	PE100												•		HDPE Pipe
P901BK-CR	0.25	0.959	≥10,000	Black	PE100 - Chlorine Resistance												•		HDPE Pipe
P901BK-SP	0.25	0.959	≥10,000	Black	PE100 - Shell Protection												•		HDPE Pipe
P921BK	0.22	0.959	≥10,000	Black	Low Sagging / High MRS												•		HDPE Pipe
P901BK-RC	0.22	0.959	≥10,000	Black	PE100RC , HSCR												•		HDPE Pipe
HDPE Color Pipe																			
P901BL	0.25	0.950	≥10,000	Blue													•		HDPE Pipe
P901C A026	0.26	0.971	-	White													•		HDPE Pipe
Further information, please contact IRPC's Sales representative.																			
HDPE Blow Molding																			
P301N-BE	0.20	0.947	-	Natural													•		Household
HDPE Cable Sheath																			
P702BK	1.50	0.968	≥1,000	Black													•		Cable Sheath
HDPE Floating Solar																			
P301GR	0.35	0.958	≥5,000	Gray	UV Resistance												•		Floating Solar Pontoon

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PP HOMO | Polypropylene Homopolymer

GRADE	MFR (230°C/2.16 kg) ASTM D1238 (g/10 min)	Izod Notched (3.2 mm, 23°C) ASTM D256 (J/m)	Flexural Modulus (1% SECANT, 1.3 mm/min) ASTM D790 (MPa)	HDT (3.2 mm, 0.455 MPa) ASTM D648 (°C)	Flammability (E132283) UL94 (Thickness, mm)	PROCESSING										INDUSTRY	
						Compression Molding	Extrusion Blow Molding	Extrusion Blow Molding	Extrusion Blown Film	Extrusion Cast Film	Extrusion Filament	Extrusion Lamination	Extrusion Sheet	Injection Molding	Injection Molding		Injection Stretch Blow Molding
B1101	0.9	60	1,600	110		•	•						•			/	EBM, Thermoforming
1102H	2.0	45	1,600	110		•	•						•	▲		/	Stationery, EBM, Thermoforming
1150H	2.2	56	2,000	125		•	•						•	▲		/	EBM, Thermoforming
1202J	3.0	55	1,700	110								•		▲		/	Fishing Nets, Raffia & Filament
FL203D	3.0	35	1,550	95							•	▲				/	BOPP Film
K1104	3.5	45	1,600	110										•		/	Household
S1003	3.5	45	1,600	110							•			•		/	Fishing Nets, Raffia & Filament
1102K	4.0	45	1,600	110	HB (15)									•		/	Fishing Nets, Appliance & Electronic Parts, Raffia & Filament
1032L	5.0	42	1,600	110										•		/	Fishing Nets, Raffia & Filament
1102M	8.0	33	1,550	105							•	•				/	CPP Film, Caps and Closures
1100NK	11	35	1,500	110	HB (15)						▲	•	▲			/	Appliance & Electronic Parts, Interior Parts, Household
1120NK	11	36	1,250	100							•	•				/	Water-quenched Blown Film
1126NK	11	34	1,300	100							•	•				/	Water-quenched Blown Film
K1111	11	32	1,600	110												/	Household
1100PK	15	31	1,500	110										▲		/	Household, Furniture
1100RC	20	28	1,500	110	HB (15)									▲		/	Appliance & Electronic Parts, Household, Furniture
1111R	20	22	1,900	129	HB (15)											/	Appliance & Electronic Parts, Household, Furniture
1105RC	25	28	1,400	105									•			/	Spunbond, Hygiene Fabric, Raffia & Filament
1100S	30	27	1,500	110										▲		/	Interior Part, Household, Furniture
1105SC	35	27	1,400	105										•		/	Spunbond, Hygiene Fabric, Raffia & Filament
1105TC	60	25	1,400	105										•		/	Spunbond, Hygiene Fabric
1140U	60	27	1,750	120												/	TWIM
1140VC	75	25	1,750	120												/	TWIM
1100XC	800														•	/	Filter, Meltblown, Hygiene Fabric
1100YC	1,200														•	/	Filter, Meltblown, Hygiene Fabric
1100ZC	1,500														•	/	Filter, Meltblown, Hygiene Fabric
1100ZXC	1,800														•	/	Filter, Meltblown, Hygiene Fabric

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EBM = Extrusion Blow Molding
BOPP = Biaxially Oriented Polypropylene
CPP = Cast Polypropylene
TWIM = Thin Wall Injection Molding



PP IMPACT COPO | Polypropylene Impact Copolymer

GRADE	MFR (230°C/2.16 kg) ASTM D1238 (g/10 min)	Izod Notched (3.2 mm, 23°C) ASTM D256 (J/m)	Flexural Modulus (1% Secant, 1.3 mm/min) ASTM D790 (MPa)	HDT (3.2 mm, 0.455 MPa) ASTM D648 (°C)	Flammability (E132283) UL94 (Thickness, mm)	PROCESSING										INDUSTRY
						Compression Molding	Extrusion Blow Molding	Extrusion Blow Molding	Extrusion Blown Film	Extrusion Cast Film	Extrusion Filament	Extrusion Lamination	Extrusion Sheet	Injection Molding	Injection Stretch Blow Molding	
2500H	2.0	Not Break	1,100	92		▲	•	▲				•	▲	/	Exterior Parts, Interior Parts, Stationery, Thermoforming	
2300K	4.0	140	1,200	98	HB (15)	▲							•	/	Appliance & Electronic Parts, Household, Container and Pail	
2500M	8.0	180	1,130	92									•	/	Household, Container and Pail	
2300NC	10	140	1,200	98	HB (15)								•	/	Appliance & Electronic Parts, Interior Parts, Household	
2300NCA	10	150	1,450	115	HB (15)								•	/	Appliance & Electronic Parts, Battery Cases	
BC03B	30	80	1,200	105	HB (15)								•	/	Appliance & Electronic Parts, Interior Parts, Household	
BC05B	50	75	1,200	105	HB (15)								•	/	Appliance & Electronic Parts, Exterior Parts, Interior Parts	

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PP RANDOM COPO | Polypropylene Random Copolymer

GRADE	MFR (230°C/2.16 kg) ASTM D1238 (g/10 min)	Izod Notched (3.2 mm, 23°C) ASTM D256 (J/m)	Flexural Modulus (1% SECANT, 13 mm/min) ASTM D790 (MPa)	HDT (3.2 mm, 0.455 MPa) ASTM D648 (°C)	HAZE (1 mm) ASTM D1003 (%)	PROCESSING										INDUSTRY
						Extrusion Pipe	Extrusion Blow Molding	Extrusion Blow Molding	Extrusion Blown Film	Extrusion Cast Film	Extrusion Filament	Extrusion Lamination	Extrusion Sheet	Injection Molding	Injection Stretch Blow Molding	
3312E	0.25	600	850	75		•								▲		PP Pipe
3340H	2.0	230	950	83	8		•							•	▲	/ EBM, Thermoforming
3340HMD	2.0	250	850	83	8		•							•		/ Medical Devices
3325M	10	25	850	75					•							/ CPP Film
K4510B	10	70	1,150	85	8									•	▲	/ Household, Caps and Closures
3375RM	24	56	750	76						•						/ Laminate Coating
K4520UB	25	45	1,280	85	4									•		/ Household, Caps and Closures
K4527ET	27	50	1,150	80	8									•		/ Medical Devices
K4527B	30	50	1,150	85	8									•		/ Appliance & Electronic Parts, Household, Caps and Closures
3375SM	35	45	750	76						•						/ Laminate Coating

PP TPO | Polypropylene Thermoplastic Polyolefin

GRADE	MFR (230°C/2.16 kg) ASTM D1238 (g/10 min)	Izod Notched (3.2 mm, 23°C) ASTM D256 (J/m)	Flexural Modulus (1% SECANT, 13 mm/min) ASTM D790 (MPa)	HDT (3.2 mm, 0.455 MPa) ASTM D648 (°C)	Flammability (E132283) UL94 (Thickness, mm)	PROCESSING										INDUSTRY	
						Compression Molding	Extrusion Blow Molding	Extrusion Blow Molding	Extrusion Blown Film	Extrusion Cast Film	Extrusion Filament	Extrusion Lamination	Extrusion Sheet	Injection Molding	Injection Stretch Blow Molding		Comply with food contact*
NBC03HRA	30	320	960	94												•	Interior Parts

EBM = Extrusion Blow Molding
CPP = Cast Polypropylene

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UHMWPE | Ultra High Molecular Weight Polyethylene

GRADE	Average Mw Margolies equation (10 ⁶ g/mol)	Average Particle Size Laser Scattering (µm)	Intrinsic Viscosity ISO 1628-3 (dl/g)	Density ISO 1183 (g/cm ³)	Bulk Density ISO 60 (g/cm ³)	PROCESSING											INDUSTRY	
						Calendering	Battery Sheet	Compression Molding	Extrusion Cast Film	Extrusion Filament	Extrusion Pipe/Sheet	Extrusion Ram	Gel Spinning	Injection Molding	Sintering	Comply with food contact		
U321	3.9	200	17.6	0.93	≥0.40		•										/	Rod-Sheet (UHMWPE)
U511H	5.8	130	23.1	0.92	≥0.40		•										/	Rod-Sheet (UHMWPE)
U511R	5.8	130	20.7	0.93	≥0.40		•										/	Rod-Sheet (UHMWPE)
U711	7.8	130	28.3	0.92	≥0.40		•										/	Rod-Sheet (UHMWPE)
U510B	5.8	130	23.1	0.93	≥0.40	•												Battery Separator
U710B	7.8	130	28.3	0.93	≥0.40	•												Battery Separator
U310T	4.9	150	20.7	0.92	≥0.40		•											Sport Application
U510FW	5.5	125	23.0	0.93	≥0.40									•			/	Filter
U711FB	6.9	130	26.0	0.93	≥0.40											•		Fishing Nets, Bulletproof Vest
U810FB	8.7	130	30.4	0.93	≥0.40											•		Fishing Nets, Bulletproof Vest



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