

QUALITY+ PERFORMANCE

ENGINEERING THERMOPLASTICS PRODUCT BROCHURE
REST OF ASIA (ROA)

ETP (ENGINEERING THERMOPLASTIC)

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Updated August 2022

LEXAN™ RESIN PC (POLYCARBONATE)

PROCESS	SERIES	GRADE	MFR, g/10min (ASTM D 1238, 300°C/1.2kg)	IZOD IMPACT, J/m (ASTM D 256, notched, 23°C)	TYPICAL APPLICATIONS	CHARACTERISTICS
Injection Molding	Auto Lighting	LS2	11	800	Automotive Lens	UV-stabilized, Medium viscosity AMECA certified
		LS1	17.5	690	Automotive Lens	UV-stabilized, Low viscosity AMECA certified
	General Purpose	141R	10.5	800	Small appliance, telecom equipment, Automotive, consumer electronics	Internal mold release
		143R	10.5	800	Lighting, telecom equipment, consumer electronics, Audio, packaging	UV-stabilized , Internal mold release
		121R	17.5	690	Automotive interior & exterior, consumer electronics, lighting	high flow and internal mold release for intricate parts
		123R	17.5	690	Automotive interior & exterior, consumer electronics, lighting	UV-stabilized , high flow and internal mold release for intricate parts
		241R	10.5	800	Desktop, printer, wall plate, Router	Medium viscosity, V2, internal mold release
		243R	10.5	800	Wiring device, lighting, Small appliance	Medium viscosity, UV-stabilized, V2, internal mold release
		223R	17.5	690	Wireless communication, lighting reflector, smart meter, Home appliance, Camera	UV-stabilized , V2, high flow and internal mold release for intricate parts
		223S	18	694	wall plate, cellphone protection case, smart audio	UV-stabilized, V2, high flow and super internal mold release for intricate parts
		HF1110R	25	640	Wireless device, game player, document handling machine	Excellent flow, easy mold release for thin wall parts
		HF1130R	25	640	Wireless device, game player, document handling machine	UV-stabilized, excellent flow, easy mold release for thin wall parts

LEXAN™ PC RESIN (POLYCARBONATE)

PROCESS	SERIES	GRADE	MFR, g/10min (ASTM D 1238, 300°C/1.2kg)	IZOD IMPACT, J/m (ASTM D 256, notched, 23°C)	TYPICAL APPLICATIONS	CHARACTERISTICS
Injection Molding	FDA	144R	10.5	800	Home appliance, food processor, toy, food disposable	FDA food contact compliant, internal mold release
		244RF	10.5	800	Home appliance such as: Microwave oven, coffee machine, water kettle	FDA food contact compliant,V2, internal mold release
	Eyewear	OQ2720	7.5	900	Sunglasses Lens	Good optical properties and cleanness, UV stabilized,400nm UV cut off
Extrusion	General purpose	103(R)	7.0	900	Sheet, profile part	Without sink mark in thicker thickness, UV stable for outdoor and lighting, internal mold release
Blow Molding	Packaging	PK2870	2.5	750	5 gallon water bottle	Branched, high viscosity, blow molding, high melt strength and impact resistance, transparent colors only; FDA 21CFR177.1580, European food contact regulation EC Directive 2002/72/EC

LEXAN™ PC FOR LIGHT APPLICATION

PROCESS	SERIES	GRADE	MFR, g/10min (ASTM D 1238, 300°C/1.2kg)	IZOD IMPACT, J/m (ASTM D 256, notched, 23°C)	TYPICAL APPLICATIONS	CHARACTERISTICS
Injection Molding	Light Management	LUX2180T	18	650	Optical parts such as : LED 1 st lens, lighting lens, light guide	High transmission and cleanness, UV stabilized, color stability, V2, F1
		LUX2910T	55	500	Optical parts such as : LED 1 st lens, lighting lens, light guide	High transmission and cleanness, superior flow, color stability, V2
		LUX2614	7.0	750	Lighting, LED tube	Diffusion, internal mold release, V2, UV stabilized, F2
		LUX2114G	18	600	Lighting, LED bulb	Diffusion, internal mold release, V2, UV stabilized, F2 long term stability
		LUX2289	16	600	Light reflector, light shielding parts	High light reflectance, UV stabilized, V2
		LUX9230T	14	800	Lighting , clear Lens, bulb	Clear, halogen-free flame retardant PC has a V0@3.05mm UL rating, UV resistance, F1
		LUX7169 (WH8G733)	22	90	Lighting, reflector	Reflectivity, halogen-free flame retardant PC has a V0@0.9mm UL rating, UV resistance, F2
		BFL2000(U)	32	600	Lighting, reflector	Reflectivity, halogen-free flame retardant PC has a V0@1.5mm UL rating; Grade name with suffix U stands for weathering capability

LEXAN™ FLAME RETARDANT GRADES

PROCESS	SERIES	GRADE	MFR, g/10min (ASTM D 1238, 300°C/1.2kg)	IZOD IMPACT, J/m (ASTM D 256, notched, 23°C)	TYPICAL APPLICATIONS	CHARACTERISTICS
Injection Molding	Non-Filled, Opaque FR- PC	905	30	740	Thin wall application, electric housing	High flow, opaque, Eco FR systems with UL-94 listing of both V0@1.1mm and 5VA@2.8mm ratings.
		BPL1000	25	600	Thin wall application, battery enclosures, connectors	High flow, opaque, Eco FR systems with UL-94 listing of V0@0.8 mm rating.
		915R	18	740	Document handling, electric housings	Good flow and mold release properties. Opaque, Eco FR systems with UL-94 listing of V0@1.1mm rating.
		916R	18*	65**	Document handling, electric housings	Good flow and mold release properties. Opaque, Eco FR systems with UL-94 listing of V0@0.8mm rating. Limited to color
		925	14	800	Document handling, electric housings	Eco FR PC has an UL-94 V0@1.1mm rating flow and impact balance
		925U	14	800	Document handling, outdoor electric housings	Eco FR PC has an UL-94 V0@1.5mm rating and is UV stabilized, F1, providing additional weathering capability
		945	10	800	Adaptor, charger, battery enclosures,	Eco FR PC has an UL-94 V0@1.0mm and 5VA@3.0mm ratings, it is a general purpose resin designed to meet the needs of various applications.
		945U	10	800	Electrical housing,	Eco FR PC has an UL-94 V0@1.5mm and 5VA@3.0mm ratings , F1, it is UV stabilized, providing additional weathering capability
		945M	10	818	Adaptor, charger, battery enclosures, EV charger	Eco FR PC has an UL-94 V0@1.5mm and 5VA@3.0mm ratings, good impact at low temperature, it is a general purpose resin designed to meet the needs of various applications.
		955	7.0	800	Lighting, LED bulb	Eco FR PC has an UL-94 V0@1.5mm and 5VA@3.0mm ratings , it is a general purpose resin designed to meet the needs of various applications

*MFR - ISO1133 at 300°C/1.2kg in cm³/10min

**IZOD IMPACT - ISO180/1A at 23°C in kJ/m²

LEXAN™ FLAME RETARDANT GRADES

PROCESS	SERIES	GRADE	MFR, g/10min (ASTM D 1238, 300°C/1.2kg)	IZOD IMPACT, J/m (ASTM D 256, notched, 23°C)	TYPICAL APPLICATIONS	CHARACTERISTICS
Injection Molding	Non-Filled, transparent FR-PC	905AU	27	700	Thin wall application, electric housing	High flow, clear Nonbrominated, nonchlorinated FR systems with UL-94 listing of V0@2.5 mm rating
		915AU	23	650	Thin wall application, battery enclosures, connectors	High flow, clear Nonbrominated, nonchlorinated FR systems with UL-94 listing of V0@3.0 mm rating
		925A	13	800	Document handling, electric housings	Clear Nonbrominated, nonchlorinated FR systems with UL-94 listing of V0@3.0 mm rating
		925AU	13	800	Document handling, electric housings	Nonbrominated, nonchlorinated FR PC has an UL-94 V0@3.0mm rating and is UV stabilized, F1, providing additional weathering capability
		945A	10	800	Document handling, outdoor electric housings	Nonbrominated, nonchlorinated FR PC has an UL-94 V0@3.0mm rating
		945AU	10	800	Document handling, electric housings	Eco FR PC has an UL-94 V0@3.0mm rating and is UV stabilized, F1, providing additional weathering capability
		9925A	13	750	Electrical housing, thin wall FR clear application	Nonbrominated, nonchlorinated FR PC has an UL-94 V0@1.5mm rating , F1, it is UV stabilized, providing additional weathering capability
		955AU	7.0	800	Connectors, document handling	Nonbrominated, nonchlorinatedFR PC has an UL-94 V0@3.0mm rating and is UV stabilized, F1, providing additional weathering capability

LEXAN™ FLAME RETARDANT GRADES

PROCESS	SERIES	GRADE	MFR, g/10 min (ASTM D 1238, 300°C/1.2kg)	IZOD IMPACT, J/m (ASTM D 256, notched, 23°C)	TYPICAL APPLICATIONS	CHARACTERISTICS
Injection Molding	Glass Filled, FR-PC	505R	7.0	100	Connector, electric housing	Nonbrominated, nonchlorinated FR UL94 V0@1.5mm, 5VB@2.0mm, 10%GF filled 5VA@3.0 mm
		505RU	8.0	90	electric enclosure, connectors	Nonbrominated, nonchlorinated FR UL94 V0@1.5mm, 5VA@3.0mm, 5VB@3.0mm F1, UV resistance, 10%GF filled
		515RU	9.0*	10**	Document handling, electric housings	Nonbrominated, nonchlorinated FR UL94 V0@1.5mm, 5VA at 3.0mm, F1, UV resistance , higher impact, 10% GF filled
		BFL2010	15	110	Electric housings, consumer appliance	Nonbrominated, nonchlorinated FR UL94 V0@1.5mm, high flow, 10%GF filled
		BFL2015	6.5	78	Electric housings, consumer appliance	Nonbrominated, nonchlorinated FR UL94 V0@1.5mm, middle flow 15%GF filled
		3412ECR	7.0	110	Connector, electric housing	Nonbrominated, nonchlorinated FR UL94 V0@1.5mm, 5VA@3.0mm, F1, UV resistance, 20%GF filled
	Structural foam	FL905	3.2	520	Package, electrical enclosures	Nonbrominated, nonchlorinated FR, UL94 V0@3.0mm, 5VA@6.0mm

*MFR - ISO1133 at 300°C/1.2kg in cm³/10min

**IZOD IMPACT - ISO180/1A at 23°C in kJ/m²

LEXAN™ PC FOR HEALTHCARE

PROCESS	SERIES	GRADE	MFR, g/10min (ASTM D 1238, 300°C/1.2kg)	IZOD IMPACT, J/m (ASTM D 256, notched, 23°C)	TYPICAL APPLICATIONS	CHARACTERISTICS
Injection Molding	ETO	HP1HF	39	687	Healthcare application	Biocompatible (ISO10993 or USP Class VI) Contains mold release, high flow
	ETO& Autoclave	HP1	25	640	Medical devices and pharmaceutical applications	Biocompatible (ISO10993 or USP Class VI) Contains mold release
		HP2	17.5	694	Medical devices and pharmaceutical applications	Biocompatible (ISO10993 or USP Class VI) Contains mold release
		HP4	10.5	801	Medical devices and pharmaceutical applications	Biocompatible (ISO10993 or USP Class VI) Contains mold release
	Gamma ETO Autoclave	HPS1	25	640	Medical devices and pharmaceutical applications	Biocompatible (ISO10993 or USP Class VI) Contains mold release
		HPS2	17.5	694	Medical devices and pharmaceutical applications	Biocompatible (ISO10993 or USP Class VI) Contains mold release
		HPS4	10	840	Medical devices and pharmaceutical applications	Biocompatible (ISO10993 or USP Class VI) Contains mold release
		HPS6	7.0	907	Medical devices and pharmaceutical applications	Biocompatible (ISO10993 or USP Class VI) Contains mold release
		HPS7	5.0	935	Medical devices and pharmaceutical applications	Biocompatible (ISO10993 or USP Class VI) Contains mold release Lipid resistance

SABIC® PC RESIN (POLYCARBONATE)

PROCESS	SERIES	GRADE	MFR, g/10min (ASTM D 1238, 300°C/1.2kg)	IZOD IMPACT, J/m (ASTM D 256, notched, 23°C)	TYPICAL APPLICATIONS	CHARACTERISTICS
Injection Molding	General Purpose	PC1000R	10	800	Wall plate, switch, home appliance	Middle flow; Heat stabilized; Internal mold release
		PC1003R	10	800	Electric meter; Lighting	Middle flow, heat and UV stabilized, internal mold release
		PC2200R	22	600	Fan, small home appliance; Lighting	High flow, heat stabilized; Internal mold release
	Optical Media	PC5800	58	150	Media market: DVD,CD	Super high flow
	FDA	PC1004R	10	800	Home appliance, food processor, toy, food disposable	Middle flow product, with internal mold release, FDA food contact compliant
	Auto Lighting	ALS01	12	800	Automotive Lens	Middle flow product, UV stabilized
Extrusion	General Purpose	PC0703R	7.0	900	Sheet	Low flow, heat and UV stabilized, internal mold release

VALOX™ RESIN PBT (POLYBUTYLENE TEREPHTHALATE)

PROCESS	SERIES	GRADE	IZOD IMPACT, J/m (ASTM D 256, notched, 23°C)	FLEXURAL MODULUS, MPa (ASTM D 790, 1.3 mm/min, 50 mm span)	TYPICAL APPLICATIONS	CHARACTERISTICS
Injection Molding	Standard	325	53	2340	Sprinklers and nozzles, pumps, door handle, tank covers, pens, pencils	Unreinforced; Improved processing
		420	110	8000	Appliance handles, spotlights, electric motors	30% GF, excellent strength, stiffness and dimensional stability
	Impact modified	V3004	51	2300	Flexible hinge, automotive connectors, film applications	Unfilled impact modified PBT
		VIC4311	137	6080	Automotive underhood applications such as ignition coil housings	30% GF, impact modified PBT with excellent epoxy adhesion
	Metallizable	V2000DM	46	2570	Automotive lighting bezel	Unreinforced, directly metallizable PBT resin
		EH7020	32	4130	Automotive bezel applications	Mineral filled, Metallizable, PBT
	FDA / Food Contact	325FC	38	2340	Kitchenware applications	FDA / Food Contact , PBT
	Low warpage	508	96	6890	Appliance handles, spotlights, electric motors	30% GF filled PBT/PC, excellent mechanical and thermal performance
	Low warpage + weatherable	VX4920	80	5500	Connectors and automotive industry	20% GF, nucleated PBT/ASA blend with excellent mechanical properties
	High Heat + Aesthetics	830	90	7400	Hot air gun housing assemblies, industrial glue guns, appliance housings and handles	30% GF PBT/PET, excellent surface finish
	Hydrostable	K4560	96	7200	Automotive applications	30% GF PBT, Impact modified, high flow, hydrolytically stable
	Healthcare	HX420HP	85	7580	Medical devices and pharmaceutical applications	Medium flow, 30% GF PBT Biocompatible (ISO10993 or USP Class VI)

VALOX™ RESIN FLAME RETARDANT PBT&PET BLENDS

SERIES	GF%	GRADE	FR RATE(UL 94) MVR, cm ³ /10min (250°C/5.0 kg)	FLEXURAL MODULUS,MPa (ASTM D 790, 1.3 mm/min, 50 mm span)	TYPICAL APPLICATIONS	CHARACTERISTICS
PBT/PC	0	357X(U)	V0@0.75mm, 5VA@2.5mm, MVR8	2060	Connector, electronic housings	Weatherable,F1
	0	V3900WX*	V0@1.5mm 5VA@3.0mm, MVR11	2200	Battery enclosure, electronic housing	Weatherable,F1
	10	4512	V0@0.75mm , MVR 30	3400	Electric motors, connector	Impact modified
	30	553	V0@0.8mm, MVR20	9400	Electric motors, connector	Lower warpage
PBT/PET	15	855	V0@1.5mm, MVR32	5200	External housings, steam irons, appliance housings and lighting parts	Improved surface appearance
	30	865	V0@1.7mm, MVR23	8000	External housings, steam irons, appliance housings and lighting parts	Flame retardant PBT+PET blend with an excellent surface appearance
PBT	0	310SE0	V0@0.71mm, 5VA@3.0mm, MVR15	2620	Electrical industry, bobbins, components and appliance housings	Standard
	6.5	457	V0@0.71mm, MVR30	3700	Electrical and appliances industries	Standard
	17	DR48	V0@0.9mm, MVR40	5200	Lamp sockets, connectors, switches	Standard
	20	4521	V0@0.75mm, 5VA@2.0mm,MVR65	6500	Electrical applications	Electrical/CTI
	30	420SE0	V0@0.7mm, 5VA@2.0mm, MVR29	9800	Edge trimmers, food mixer motor stator and commutator, cooling fan	Standard
	30	4631	V0@0.75mm, MVR40	9000	Edge trimmers, food mixer motor stator and commutator, cooling fan	Electrical/CTI
	30	V4760	V0@0.3mm, MVR28	9500	Electrical applications	Thin wall brominated FR, high flow, high CTI
	30	V4860HR	V0@0.8mm , MVR12	6740	Electrical and medical application	Hydrolytically stable, Impact Modified
	35**	771	V0@0.75mm, 5VA@2.0mm, MVR8	7900	Electrical applications	Electrical/CTI

*MVR test condition: 265°C, 2.16 kg

**Glass filled/mineral filled

CYCOLACT™ RESIN ABS (ACRYLONITRILE BUTADIENE STYRENE)

PROCESS	SERIES	GRADE	IZOD IMPACT, J/m (ASTM D 256, notched, 23°C)	HDT, °C (ASTM D 648, 1.82 MPa, 3.2mm, unannealed)	TYPICAL APPLICATIONS	CHARACTERISTICS
Injection Molding	General Purpose	MG47 (F/N)	320	80	Home appliance, Toy, Business equipment	General purpose, medium impact, balanced flow; Grade name with suffix F stands for FDA compliant; Grade name with suffix N stands for NSF compliant
		MG94(F)	240	82	Large size and thin wall applications	High flow, impact Grade name with suffix F stands for FDA compliant
	Flame Retardant	FR15(U)	213	70	Electronic housing, switches, computer equipment	V0 at 1.5mm, balanced property
	High Heat	X11	320	86	Automotive interior, rear lighting housing, rear mirror housing; Warm air blower	HDT 90°C, balanced flow/ impact
		DL200H	620	96	Automotive interior, rear lighting housing, rear mirror housing; warm air blower	HDT 101°C, medium impact
	Healthcare	HMG47MD	320	82	Medical disposable, housing, handles, drain bases	Flow/impact balanced. Biocompatible. Healthcare
		HMG94MD	240	82	Medical disposable, housing, handles, drain bases	High Flow; Biocompatible; Healthcare
	Plating	MG37EPX	250	76	Automotive front grill, name plate, decoration strip; Bathroom accessory	General purpose easy plating
	SAN	INP576	21	87	Drink cup; houseware; polymer compounding	Middle Flow, FDA
Extrusion	Extrusion	EX58 (F)	432	76	Sheet extrusion, trunk & suitcase shin	High Impact; Grade name with suffix F stands for FDA compliant

GELOY™ RESIN ASA (ACRYLIC STYRENE ACRYLONITRILE)

PROCESS	SERIES	GRADE	IZOD IMPACT, kJ/m ² (ISO 180/1A, notched 80*10*4, +23°C)	MFR, g/10min (ASTM D 1238, 220°C/10kg)	TYPICAL APPLICATIONS	CHARACTERISTICS
Injection Molding	General Purpose	CR8510	15	6.3	Automotive front grill, external rear mirror housing, rear light housing, center high mounting stop lamp, spoiler	High heat resistance, F1 listing, especially for automotive parts
		CR7520	9.0	7	Automotive, transportation, marine, sport leisure equipment	Standard heat, high flow, F2
		CR7500	15	6.3	Automotive, transportation, marine, sport leisure equipment	Optimum flow impact balance. Auto spec
	Extreme Weather- ability	XTWM206	15	8.8	Automotive front grill, Building & Construction applications, Sport & leisure equipment	Extreme weatherability, F1 listing, high stiffness
Extrusion	Extreme Weather- ability	XTWE480	5.0	38	Window profile cap stock	High gloss, scratch resistance, suitable for PVC co-extrusion

GELOY™ RESIN PC/ASA

PROCESS	SERIES	GRADE	IZOD IMPACT, kJ/m ² (ISO 180/1A, notched 80*10*4, 23°C)	VICAT SOFTENING TEMP, °C (ISO 306, B/120)	TYPICAL APPLICATIONS	CHARACTERISTICS
Injection Molding	General Purpose	XP4025	15	107	Consumer appliances housing, transporation panel, automotive, outdoor device housing	Cost balanced
		XP4034	33	109	Automotive external/inner rear mirror housing, roof rack trim, lift gate/decklid handle housing, license plate frame	High heat resistance, middle impact, F2 rating
		XP4020R	na	na	Consumer appliances housing, transporation panel, automotive, outdoor device housing	High flow, 20% Post industrial recycle
	Flame Retardant	HRA222 (F)	17	104	Coffee machine, switch panel, medical device, telecom device	Non-Br/Cr FR, V0@2 mm, 5VB@2 mm, Grade name with suffix F stands for UL94 F1 rating
		XTPMFR10	13	98	Consumer appliances housing, transporation panel, automotive, outdoor device housing	Non-Br/Cr FR, V0@1.0 mm, 5VB@2 mm

CYCOLOY™ RESIN PC/ABS

PROCESS	SERIES	GRADE	IZOD IMPACT, J/m (ASTM D 256, notched, 23°C)	MFR, g/10min (ASTM D 1238, 260°C/5kg)	TYPICAL APPLICATIONS	CHARACTERISTICS
Injection Molding	Non-FR general purpose	C1200HF	587	19	Automotive interior & exterior, lighting, consumer electronic, telecommunication	High heat, high impact, low temperature impact
		HC1204HF	580	24	Medical equipment and device	Healthcare biocompatible (ISO 10993, USP class VI compliance)
		LG9000	534	17	Automotive interior	Low gloss
		MC1300	534	14	Automotive door handle, front grill, name plate, decoration strip; Bathroom accessory	Plating grade, excellent flow and impact
		CP8320	600	14	Automotive, door handle, front grill, name plate, decoration strip; Bathroom accessory	Plating grade, medium heat
		XCY620	640	17	Automotive interior & exterior	Excellent properties retention after Hydrolytic and Heat Aging
		XCY620S	680	23	Automotive interior & exterior	Standard colors available

CYCOLOY™ PC/ABS AND PC BLENDS FLAME RETARDANT GRADES

PROCESS	SERIES	GRADE	MFR	IZOD IMPACT, J/m (ASTM D 256, notched, 23°C)	TYPICAL APPLICATIONS	CHARACTERISTICS
Injection Molding	Non-Filled, FR-PC/ABS &PC blend	C6600*	21	550	Document handling, consumer appliance	Nonbrominated, nonchlorinated FR V0@1.5mm, 5VB@2mm, hydrostable
		CY6110*	23	475	Document handling, electrical housing	Nonbrominated, nonchlorinated FR V0@1.5mm, 5VB@2.5mm, high hydrostable, high flow and high impact
		CY6310*	20	600	Document handling, electric housings	Nonbrominated, nonchlorinated FR V0@1.5mm, 5VA@2.9mm, 5VB@2.3mm , high impact, heat, flow
		CY6414**	14	795	Electric housings; Adaptor& chargers	Nonbrominated, nonchlorinated FR V0 @1.2mm, 5VB@2.5mm, High Heat, Impact Modified PC blend
		CY6120*	18	587	Electric housings, consumer appliance	Nonbrominated, nonchlorinated FR V0@1.2mm
		CY6025*	28	370	Document handling, electric housings	Nonbrominated, nonchlorinated FR V0@1.2mm, 5VB@1.5mm, high flow
Extrusion	Non-Filled, FR-PC/ABS &PC blend	CE3510***	8.0	664	Cable, profile	Nonbrominated, nonchlorinated FR V0@1.5mm, halogen free according to DIN VDE 0472/815 for cable channels; Compliance to IEC1386-1 & EN50085/86

CYCOLOY™ PC/ABS AND PC BLENDS FLAME RETARDANT GRADES

PROCESS	SERIES	GRADE	MFR, g/10min (ASTM D 1238, 260°C/5kg)	IZOD IMPACT, J/m (ASTM D 256, notched, 23°C)	TYPICAL APPLICATIONS	CHARACTERISTICS
Injection Molding	Filled , FR PC/ABS	CM6140*	17.5	200	Electric housing	3.3 GPa, Vicat 91°C Nonbrominated, nonchlorinated FR V0 @ 0.8mm, V1@ 0.6mm 5VB@ 1.5mm
		CM6240*	16.5	86	Electric housing	4.4 GPa, Vicat 97°C, Nonbrominated, nonchlorinated FR V0 @ 0.8mm 5VB@ 1.5mm
		C7230P*	13	69	Electric housing	4.5 GPa, Vicat 108°C Nonbrominated, nonchlorinated FR V0 @ 1.2mm , 5VB@ 2.0mm
Injection/ Extrusion/ Thermoforming		CM6210**	11.5	500	Electric housing sheet extrusion	3.5 GPa, Vicat 106°C Nonbrominated, nonchlorinated FR V0 @ 1.5 mm

*MFR at 260°C/2.16 kg in g/10 min

**MFR at 260°C/5 kg in g/10 min

***MVR at 260°C/5kg in cm³/10 min

Vicat B/50- ASTM1525 & ISO306

XENOY™ RESIN PC/PBT

PROCESS	SERIES	GRADE	IZOD IMPACT, J/m (ASTM D 256, notched, 23°C)	HDT, °C (ASTM D 648, 1.82 MPa, 3.2mm, unannealed)	TYPICAL APPLICATIONS	CHARACTERISTICS
Injection Molding	General Purpose	5220U	710	84	Recreation & Agriculture equipment, Handset housing & accessory, Power tools, CE handset accessory, housing	Chemical & UV resistance, Low temperature ductility, Molded-in-color
		CL100	700	90	Heavy trucks (body panels) shoe caps	Chemical resistance, Low temperature ductility, Molded-in-color, Good paint adhesion
	Weather- ability	1731	667	93	Exterior components (door handles), CE wearables (athletic trackers)	Impact/Chemical resistance; Molded-in-color
	Low Temp Ductility	6620U	801	53	Gas tanks, Irrigation sprinklers, Packaging consumer electronics	Chemical & UV resistance, barrier to fuel, molded-in-color ; weathering capability
		5720U	722	83	Recreational & Ag equipment, Packaging	Chemical & UV resistance, LT ductility ("Best-in-class"), Molded-in-color. weathering capability
		1102	801	90*	Energy Absorbers, bumper beam consumer electronics	Excellent low temperatue impact/chemical resistance to automotive fluids
		1105	755	97*	Energy Absorbers, bumper beam, home appliance	Impact modified, excellent toughness at low temperatures, very good paintability
	High Heat	X2500UV	600	108	Heavy trucks (body panels)	Chemical resistance, Low temperature ductility, Molded-in-color, Good paint adhesion, Improved heat (vs CL100)
Injection Molding	Filled PC/PBT	X6320	45	88	Painted door handle	10% mineral; Good surface finish and ease of process
		X5230	8**	100***	Automotive and OVAD	15% Talc filled , good surface appearance for painted solutions
		6370	170	148	Automotive and OVAD	30% glass fiber. Impact modified/toughness
	HMD (High Modulus Ductile)	X4830	600	106	Outdoor equipment, door handle, flexible hinges	Hydrostable,7% mineral, high modulus, low temperature ductile
		X4850	180	101	Outdoor equipment, door handle, flexible hinges	12% mineral; Hydrostable, high modulus, high ductile

* HDT Part thickness 6.4mm

** IZOD IMPACT - ISO100/1A in kJ/m²

***HDT - ISO75/Ae

XYLEX™ RESIN PC/PET ALLOY

PROCESS	SERIES	GRADE	MFR,g/10min (ASTM D 1238, 265°C/ 2.16kg)	IZOD IMPACT, J/m (ASTM D 256, notched, 23°C)	TYPICAL APPLICATIONS	CHARACTERISTICS
Injection Molding	Consumer Electronics	X7300(CL)	21	660	Mobile phones cover and lens,peripherals &device	Transperent, chemical resistance, low temperature processing. Grade name with suffix CL stands for clean
		X8210	10	800		Transperent,Chemical resistance, low temperature processing.
	General Purpose	X8409AC	4.0	854	Power tools, others	High viscosity and melt strength, extrusion, blow moldable, selective Plating
		X7507	8.0	990	Pool Spa	Transparent, UL F1 performance; Chemical resistance vs pool cleaners
		X7509HP	12	850	Consumer Housewares Food service	Transparent, better flow, excellent selective plating, FDA
	Healthcare	HX8300HP	15	1120	Medical Equipment and Delivery Devices	Transparent, high chemical resistance, better flow;Biocompatible
		HX7509HP	12	854		Transparent, chemical resistance, Biocompatible

POM (POLYOXYMETHYLENE)

REMARKS: NOT ALL POM GRADES ARE AVAILABLE IN ASIA. PLEASE CHECK WITH US FOR THE PRODUCT AVAILABILITY IN SPECIFIC COUNTRIES.

PROCESS	GRADE	MELT INDEX g/10min (ISO1133, 190°C/ 2.16kg)	DENSITY (g/cm ³)	TYPICAL APPLICATIONS	CHARACTERISTICS
Extrusion Molding	30RE	2.8	1.41	Thick-walled, void-free molded parts, Extruded stock shapes	Stiff-flowing copolymer POM grade suitable for injection molding and extrusion. Good chemical resistance to solvents, fuel and strong alkalis as well as good hydrolysis resistance
	30S	3.0	1.41	Thick-walled, void-free parts used for automotive parts like door handles, sheet, rods and tubing	Stiff flowing copolymer POM grade suitable for injection molding and extrusion. High impact toughness. Good tracking resistance over range of temperature
Injection Molding	90S	9.0	1.41	Wide range of plumbing products, camera gears and toys	General purpose standard injection molding grade. High rigidity, tough and hardness
	140S	14	1.41	Precision parts and thin-walled moldings, fuel systems parts, Zippers	Easy flowing Injection molding type for precision molded parts and thin-walled molded parts with high rigidity. High toughness and hardness
	280S	27	1.41	Complicated precision parts, thin-walled moldings multicavity molded goods like gears, sprinkler systems and shower heads	Very easy flowing injection molding grade. High rigidity and hardness
	460S	45	1.41	Complicated, thin-walled precision parts, water flow meter	Extremely easy flowing injection molding grade for thin-walled precision molded parts with intricate flow-path-wall thickness relation. Permits processing at reduced temperature and shorter cycle times

SABITAL™ POM COMPOUND

PROCESS	GRADE	MELT INDEX cm ³ /10min (ISO1133, 190°C/ 2.16kg)	DENSITY (g/cm ³)	TYPICAL APPLICATIONS	CHARACTERISTICS
Injection Molding	90GV10	4.5	1.48	Molded parts requiring high strength, stiffness, hardness and wear resistance	Good flow and combination of strength, stiffness. Good Dimensional Stability
	90GV20	2.5	1.57	Molded parts requiring high strength, stiffness, hardness and wear resistance	Moderate flow with higher strength, stiffness, hardness and high HDT. Good dimensional stability
	90GV30	3.0	1.60	Molded parts requiring high strength, stiffness, hardness and wear resistance	Combination of very high strength, very high stiffness, hardness and high HDT. Good dimensional stability

PMMA (POLYMETHYL METHACRYLATE)

PROCESS	GRADE	MELT INDEX (g/min) (ISO1133, 230°C/ 3.8kg)	DENSITY (g/cm ³)	TYPICAL APPLICATIONS	CHARACTERISTICS
Extrusion, Molding, Thermoforming	P15OE	1.5	1.19	Used in monitor LGP (Light Guide Plate) e.g.TVs and LCDs	An optical LGP extrusion grade an optical extrusion grade characterized by low foreignmatter account (MRC test method) and low UV absorbance (<70 ppm)
	17OP	1.7	1.19		
	20HR	2.0	1.19	Heat resistance grade used for e.g. tail light	Heat resistance grade, characterized by high temperature of deflection under load (≥98 °C) and high Vicat softening temp (≥105 °C) is a standard PMMA grade is largely divided in to extrusion and injection molding purpose
	P20MH	2.0	1.19		
	23SP	2.3	1.19	Used for sheet extrusion with a wide range usage out door, e.g. signage	Special extrusion grade. The balance of melt flow rate and temperature of deflection under load is convenient for extrusion
	60MS	6	1.19	Household/Table ware applications	Medium flow PMMS. Grade suitable for injection and extrusion applications
Injection Molding	140HF	14	1.19	Used for injection molding applications such as cups and salad bowl	Easy flowing grade for Injection molding with high flow. Good moldability

PA6 (Polyamide 6)

PROCESS	GRADE	Relative Viscosity	Water Content (Wt %)	TYPICAL APPLICATIONS	CHARACTERISTICS
Extrusion Molding Spinning Coating	S27	2.7	≤0.06%	Plastics Compounding, Paper coating, High Tenacity monofilament/yarn.	Low Viscosity, Contains no lubrication.
	S32	3.2	≤0.06%	Plastics Compounding, Paper coating and barrier film, High Tenacity filament for fishing nets/tyre cord.	Medium Viscosity, Contains no lubrication, Good strength and barrier properties.

TRUCIRCLE™ PCR (Post Consumer Recycled Resin)

PROCESS	GRADE	Izod Impact, J/m (ASTM D 256, notched, 23°C)	HDT, °C (ASTM D 648, 1.82 MPa, 3.2mm, unannealed)	TYPICAL APPLICATIONS	CHARACTERISTICS
injection molding	T2BX2500UV	400	95	Key Board, mouse , headband, etc. consumer goods housing	XENOY™ PC/PET blend with good flow and impact balance, good chemical resistance, intended for various enclosure and housing application. Contains 20% recycled Ocean bound plastic.
	R9453V	10	720	Charger , Adaptor , electrical enclosures,etc.	LEXAN™ R9453V Polycarbonate (PC) is a non-filled, non-chlorine and non-brominate flame retardant resin for general purpose, which contains 30% postconsumer recycled PC. This resin is of UL-94 V0 rating and for various injection molding applications. Limited availability and restricted color only.
	T3RCY4000	25	500	Document handling, game player , electrical housing	CYCOLOY™ T3RCY4000 resin is an injection moldable, flame retardant PC/ABS blend free of chlorinated or brominated flame resistant additives, which contains 30% post consumer recycled PC. CYCOLOY™ T3RCY4000 resin has excellent flow and balanced impact properties and is available in various color options. It is an ideal candidate for a wide variety of different applications.

BR (POLYBUTADIENE RUBBER)

PROCESS	GRADE	MV ML(1+4) @100°C	CIS 1,4 (%)	APPLICATIONS	CHARACTERISTICS
Extrusion Molding Calendering	4010	40 +/- 5	96 Min	<ul style="list-style-type: none"> • Tire tread, sidewall and carcass conveyor belt coverings • Shoe sole, hoses and tube covers • Mechanical and sporting goods 	<p>Low Mooney grade generally used in blends with other elastomers and is designed for</p> <ul style="list-style-type: none"> • Good abrasion resistance • Excellent flex cracking resilience • Good low temperature properties • Low cold flow property • Excellent filler dispersion and shorter mixing cycles • Low die-swell and good dimensional control
	4610	46 +/- 5	96 Min		<p>Medium Mooney grade generally used in blend with other elastomers and is designed for</p> <ul style="list-style-type: none"> • Excellent abrasion resistance • Excellent flex cracking resistance • Excellent resilience • Good low temperature properties • Low rolling resistance
	5510	55 +/- 5	96 Min		<p>High Mooney grade generally used in blend with other elastomers and is designed for</p> <ul style="list-style-type: none"> • Excellent abrasion resistance • Excellent flex cracking resistance • Excellent resilience • Good low temperature properties • Low rolling resistance
	4510	45 +/- 5	96 Min		<p>Medium Mooney grade generally used in blends with other elastomer and is designed for</p> <ul style="list-style-type: none"> • Good abrasion resistance • Excellent resilience and flex-cracking resistance • Good low temperature properties • Low cold flow tendency • Good processibility • Excellent filler dispersion and short mixing time

EPDM (ETHYLENE PROPYLENE DIENE RUBBER)

PROCESS	GRADE	MV ML(1+4) @125°C	ENB%	C2%	APPLICATIONS	CHARACTERISTICS
Extrusion Molding	756	72	5.0	69	Auto coolant/air hose, building profiles, industrial hoses, weather seals, wire & cable, TPV	Exhibits smooth and fast extrusion with tensile strength, compression set, and flexibility
	855	80	5.2	55	Automotive weatherseals, auto coolant / air hoses, industrial gaskets and O rings for pipes / hoses, and washing machine gasket, TPV	Fast mixing, extrusion, molding, and cure rate with good compression set properties at low and high temperature
	657	60	5.0	73	Extruded profiles, Automotive weatherseals, gaskets and seals, low voltage wires and cables insulation, TPV	Excellent processibility; mixing, mill handling, tensile strength, tear strength, compression set, and flexibility
Molding	245	25	4.5	50	Brake parts, molded foam sheets, precision seals, electrical connectors, gaskets, and hose mandrels, shoe sole	Fast cure rate and high cure state with good low temperature flexibility and compression set properties
Calendering	626	67	2.8	69	Sheets, water management liners, and roof membranes, shoe sole	Good calenderability, mixing, tensile strength, compression set, and flexibility

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