



INFINO
Create Infinite Possibilities



INFINO[®]
PC & PC Alloy, High Performance EP



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Product Portfolio

INFINO® is LOTTE Chemical's high-performance engineering plastics brand, symbolizing the company's commitment to pursuing infinite possibilities and creating differentiated solutions and values for customers.

INFINO®

PC & PC Alloy

PC	PC/ABS	PC/ABS/GF	PC/GF	Special Alloy
Transparent	General	Flame Retardant	General	PC/ASA
General	Metal Plating	Eco-friendly	High Impact	PC/PET
Flame Retardant	Flame Retardant		Flame Retardant	PC/PBT
Eco-friendly	Eco-friendly		Dimensional Stability	
Medical	Luminous		Eco-friendly	

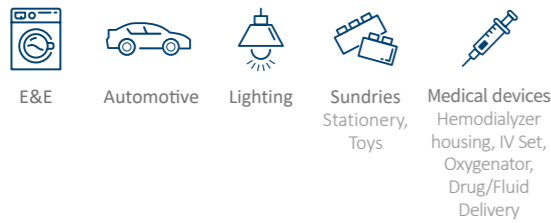
High Performance EP

PPA	PBT	mPPE	PPS	PCT
PPA/GF	PBT	mPPE	PPS/GF	PCT/GF
High Impact	PBT/GF	mPPE/GF	PPS/GF/MF	
High Heat Resistant	PBT/ABS/GF	PA/PPE		
Flame Retardant (non-halogen)	PBT/ASA/GF	PA/PPE/GF		
Eco-friendly	PBT/PET/GF, MF	PA/PPE/CNT		



Transparent PC

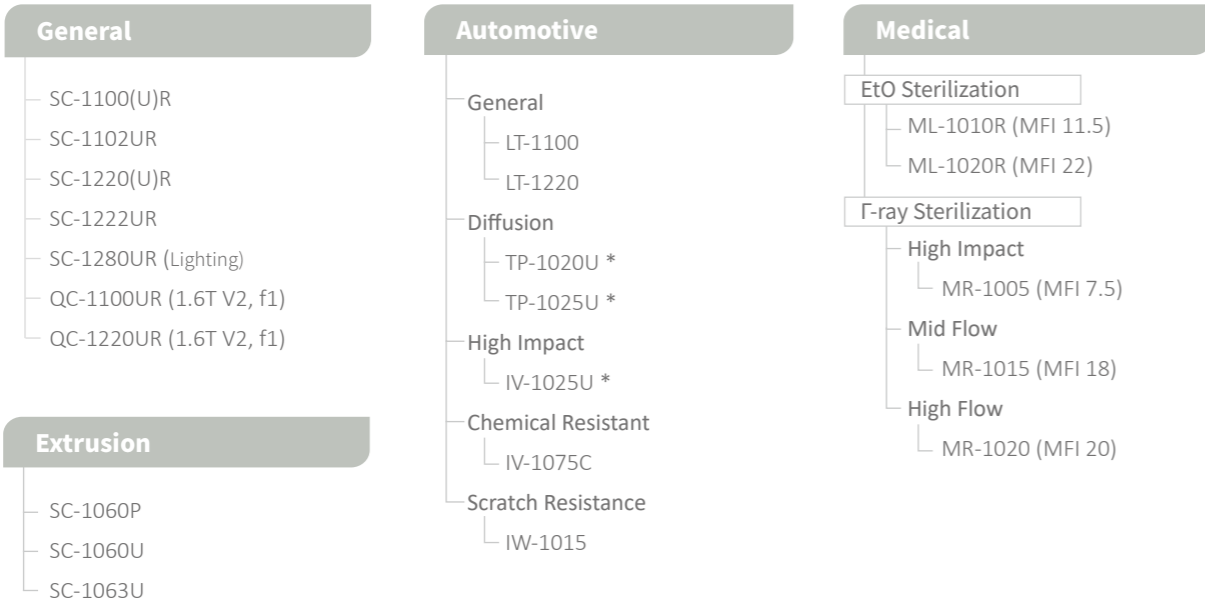
APPLICATIONS



KEY FEATURES



PRODUCT LINE UP



* Under Development

Flame Retardant PC

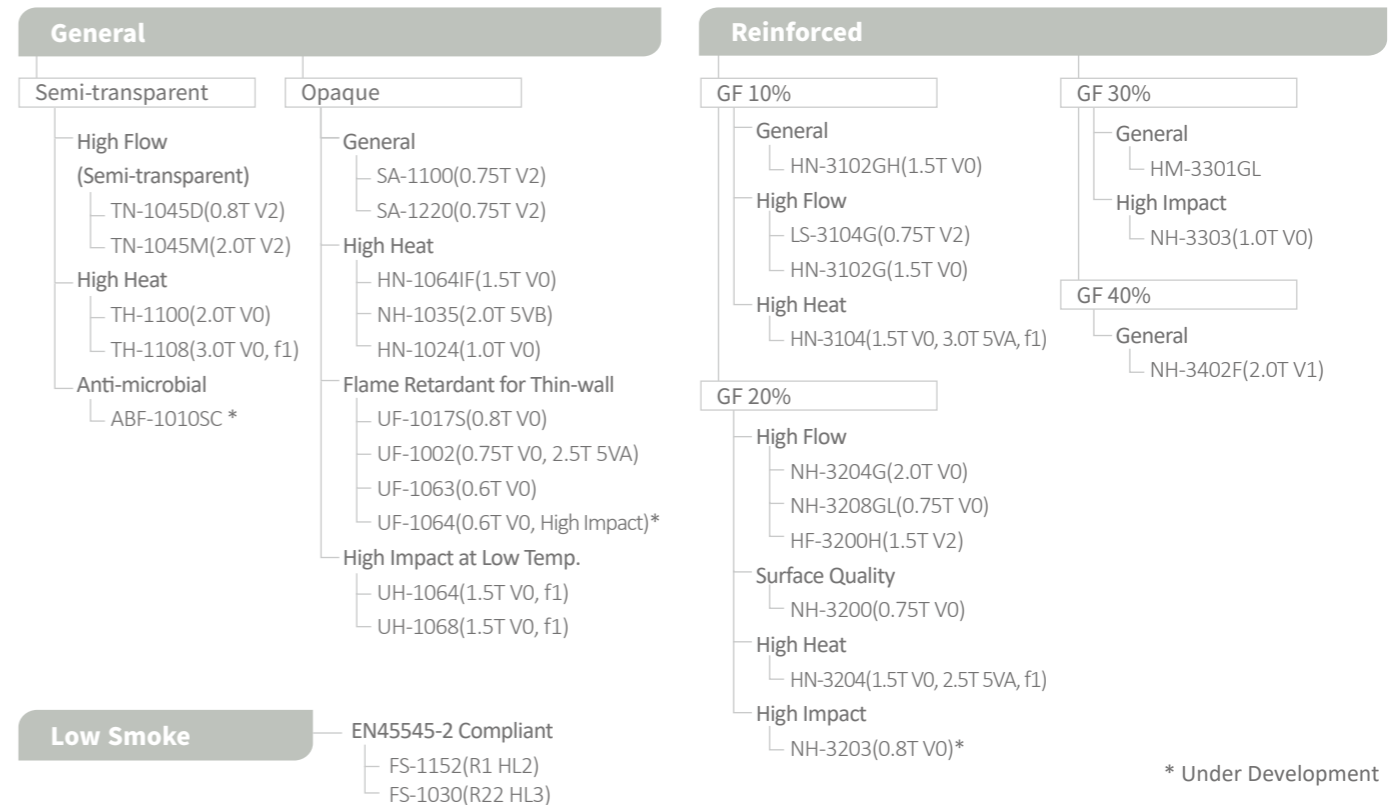
APPLICATIONS



KEY FEATURES



PRODUCT LINE UP



* Under Development



Flame Retardant PC Alloys

APPLICATIONS



E&E



Energy Battery, Smart meter

KEY FEATURES



Flame retardant & Heat resistance
Cl, Br free



High modulus



Flowability

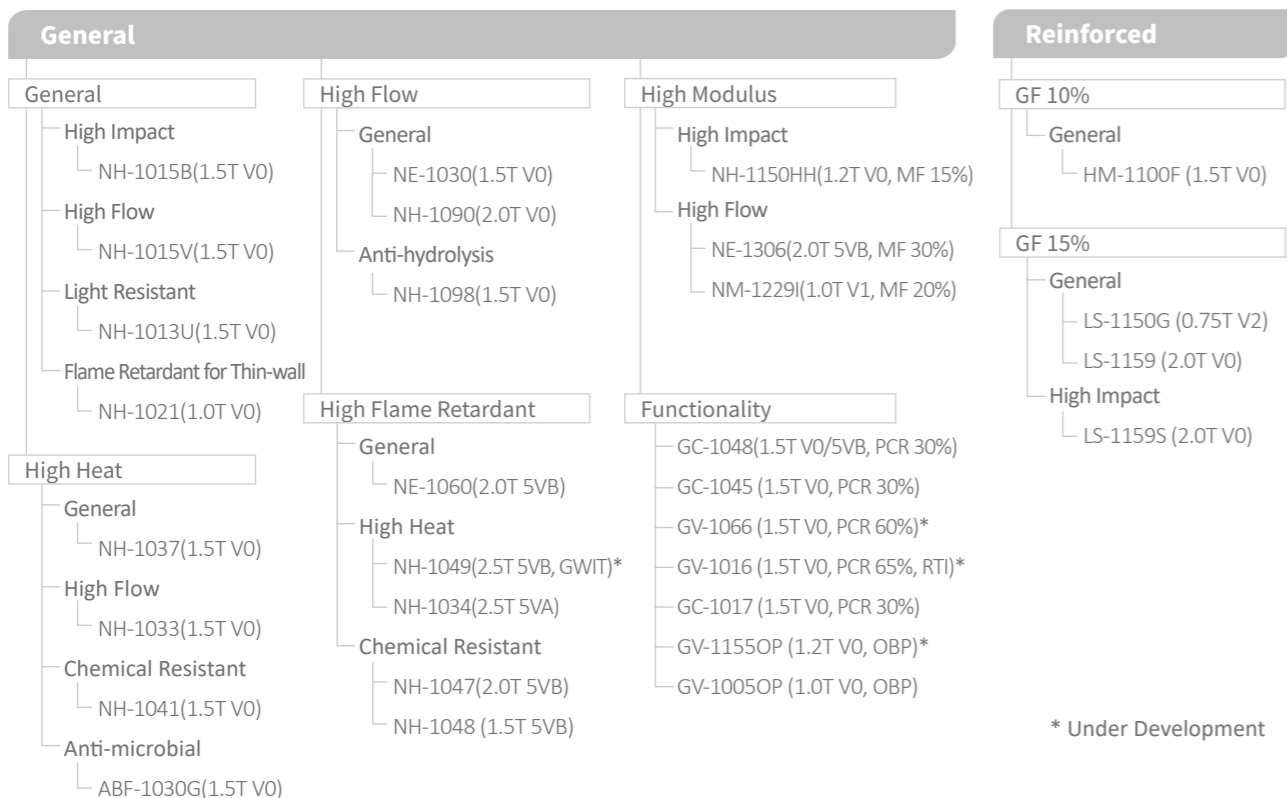


Impact strength



Surface quality

PRODUCT LINE UP



* Under Development

High Impact PC & PC/GF

APPLICATIONS



Mobile devices



E&E

KEY FEATURES



Flowability



High modulus



Impact strength after painting process

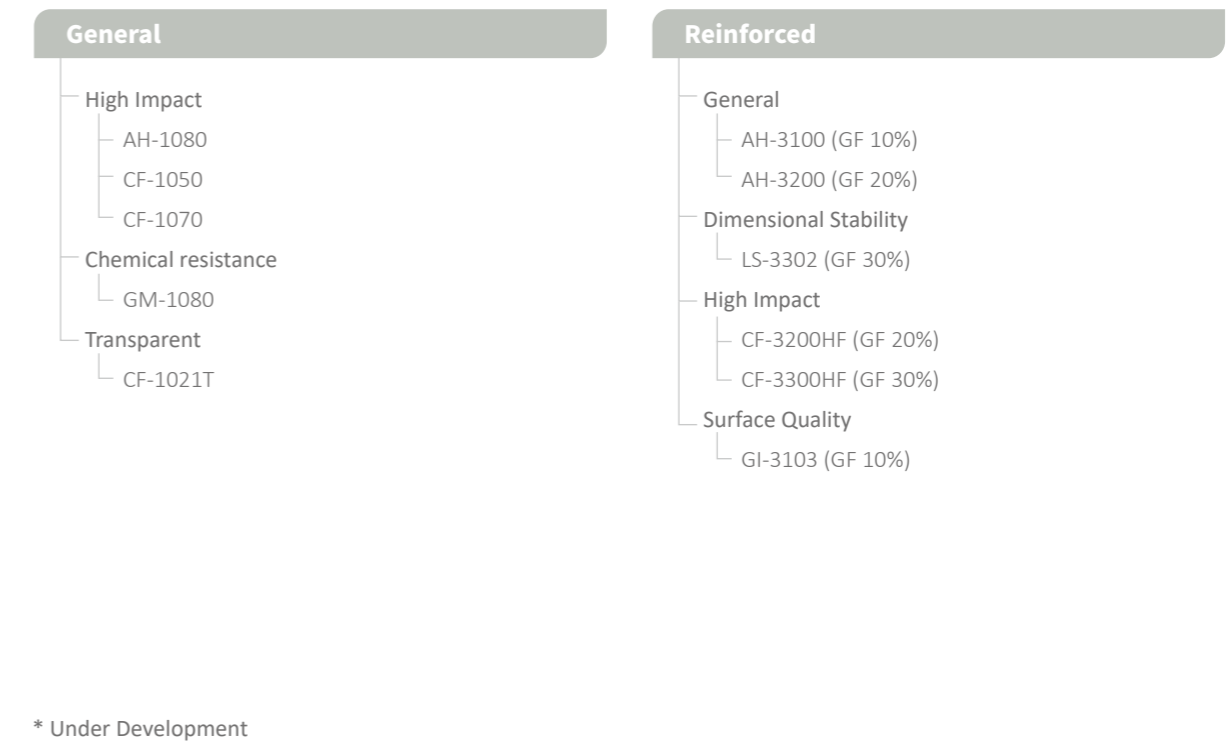


Surface quality



Chemical resistance
Cosmetic

PRODUCT LINE UP



* Under Development



High Heat Resistant EP

APPLICATIONS



LED



Connector



Mobile devices
Engine Room, Interior, Exterior

KEY FEATURES



Long-term heat stability



High modulus

A+

Quality stability

PRODUCT LINE UP

PCT (High Reflectivity/Reliability)

Processability at Low Temp.

General

TK-2046MA

High Luminance

TK-2050LP

Transparent

TK-2020T

PPA (High Heat Resistance/Impact Strength)

Connector (PA6T)

Flame Retardant

HX-4302G (0.4T, V0)

HX-4452G (0.4T, V0)

Automotive

General

HA-4302G (GF 30%)

Long-term Heat Resistance

HA-4350HP (GF 35%)

Metal Plating

HA-4400MP

Super Structural EP

APPLICATIONS



Mobile devices
Rear cover, Bracket



E&E
TV, Bobbin, Connector



HA
Coffee machine

KEY FEATURES



Metal-replacement



Thin-wall design



Flowability

PRODUCT LINE UP

PA, PPA (Super Modulus)

HM-4450C (PPA/GF45%, 34GPa)

HM-4300G (PPA/GF 30%, 10GPa)

HM-4500G (PPA/GF 50%, 13GPa)

HM-4650G (PPA/GF 65%, 20GPa)

HM-4650LW (PPA/GF 65%, 20GPa, Low Warpage)

MKD-1016 (PA/GF 55%, 15GPa, Low Warpage)

PPS (High Impact/Anti-scratch)

XP-2130A (PPS/GF 30%, Anti-scratch)

Metal Adhesion, LDS Materials

APPLICATIONS



Mobile devices
Rear cover



Internal antenna
Mobile devices, E&E

Metal Adhesion

LDS

KEY FEATURES



High adhesion



Impact strength,
Low shrinkage



Chemical resistance



Plating adhesion strength



Impact strength

Metal Adhesion

LDS

PRODUCT LINE UP

Metal Adhesion

PBT/GF

JS-5207LD (GF 20%, Low Permittivity)

LDS (Laser Direct Structuring)

PC

LP-1025(Chemical Resistant)

PC/GF

LP-3105 (GF 10%, Chemical Resistant)

LP-3305 (GF 30%, Chemical Resistant)

LP-3303 (GF 30%, Black)

PC/ABS

LP-1010 (Black)

LP-1011(White etc.)

PA

LP-4300 (GF 30%)

LP-4304 (GF 30%, High Heat) *

Eco-friendly

LP-3305GW (GF 30%, PCR 20%)



Eco-friendly Material

APPLICATIONS

E&E E&E Automotive Mobile 잡화 Energy Battery, Smart meters

KEY FEATURES

Eco-friendly Sustainable plastic resource circulation Flame Retardant, Heat Resistant Flame retardant Cl, Br Free High Modulus fluidity Various Color Available

PRODUCT LINE UP

Mechanical Recycling

Flame Retardant PC	Flame Retardant PC/ABS	High Impact PC
General GC-1022 (1.5T V0, RTI) (20%) GC-1025 (1.5T V0, RTI) (50%) GC-1029 (1.5T V0, RTI) (90%)* GV-1025 (1.0T V0, RTI) (50%) GC-1002FR (0.6T V0) (20%)*	General GC-1045 (1.5T V0) (30%) GC-1017 (1.5T V0) (30%) GC-1016 (1.5T V0, RTI) (65%)* GC-1150HC (1.2T V0 MF 15%) (30%) GC-1048 (1.5T 5VB) (30%) GC-1055 (1.5T 5VB) (50%) GC-1087 (1.5T 5VB) (75%)* GC-1088 (1.5T 5VB) (80%)*	General GW-1053 (30%) GW-1055 (50%) GW-1059 (90%)* GW-1005TH (Transparent) (50%)*
Reinforced GC-3107 (GF 10%, 1.5T V0) (70%)* GC-3103 (GF 10%, 0.8T V0) (30%)* GC-3203 (GF 20%, 0.8T V0) (30%)* GC-3303 (GF 30%, 0.8T V0) (30%)* GC-3403 (GF 40%, 0.8T V0) (30%)*	Reinforced GC-1151 (GF15%, 1.5T V1) (20%)	Reinforced GW-3203 (30%)

OBP (Ocean Bound Plastics)

Flame Retardant PC/ABS	PA/GF
GV-1005OP (1.0T V0) (50% (OBPET 5% + PC 45%)) GV-1155OP (1.2T V0, MF 15%) (50% (OBPET 5% + PC 45%))	GB-9302 (GF 30%) (OBPA 20%) GB-9502 (GF 50%) (OBPA 20%)* GB-9702 (GF 70%) (OBPA 20%)*

* Under Development
 * % Recycled material content

Automotive Materials

Interior	Exterior
PC General LT-1100 LT-1220 Diffusion TP-1020 TP-1020U TP-1025U High Impact IV-1025U IV-1075C (Chemical Resistant)	PC/ABS General HP-1000X HP-1000XA Low TVOC HP-1000XL High Flow WP-1069 WP-1089 Chemical Resistant HP-1000XC WP-1059J Luminous(Paint-free) LX-1098F LX-1025
PC/ASA WR-7250H IF-7900 (Emotional Feeling) WR-7390EA (Eternal Antistatic)	PC/PET General AE-2030 High Flow AE-2039 High Modulus (MF) AE-2130 (5%) AE-2150F (15%)
PC/ABS/GF WP-1100 (10%) WP-1200 (20%)	PC/ABS/MF WP-1170M(MF17%)
PC/PBT AE-3080C (Chemical Resistant)	PC/ASA General WR-7000 Heat Resistant WX-7010 WX-7030
PBT/PET/GF AR-6300 AR-6308	PC/PBT High Impact AE-3060 AE-3063I (High Impact at Low Temp.)
PA/ABS SR-9325*	PBT/PET/GF AR-6508

Lighting	Structure	Power Train (EV Battery)
PC General LT-1100 LT-1220	PBT ASF-9810FL ASF-9810FM ASF-9860	PC (FR) EFC-5087 (1.5T V0) EFC-5048 (0.8T V0, High Heat)
PC/ABS General HP-1000XA High Flow WP-1069 WP-1089 High Gloss/Low Gas HP-1000XG	PBT/ASA/GF AR-5300H PA/PPE/CNT CA-7000C* CA-7009 PBT/PET/GF AR-6200	PPE (FR) EFE-8107* (GF 10%, 1.5T V0) EFE-8107B* (GF 10%, 1.5T V0, Dimension) EFE-8108B* (GF 10%, 0.8T V0, Dimension) EFE-8205* (GF 20%, 2.0T V0)
		PC/ABS (FR) EFC-1087 (1.5T V0) EMC-1067* (1.5T V0, PCR 10%) EFC-1206 (GF 20%, 3.0T V0) EFC-1207 (GF 20%, 1.5T V0)
		PA (FR) EME-9307* (GF 30%, 1.5T V0, PCR 40%) EFE-9308* (GF 30%, 0.8T V0)

* Under Development



Product Selection Guide

Transparent PC

					General						
Properties		Test Method	Condition	Unit	SC-1100R	SC-1100UR	SC-1102UR	SC-1220R	SC-1220UR	SC-1222UR	SC-1280UR
Physical	Specific Gravity	ASTM D792	-	-	1.2	1.2	1.2	1.2	1.2	1.2	1.2
	Melt Flow Index	ASTM D1238	250°C, 10kg	g/10min							
			300°C, 1.2kg		11.5	11.5	11.5	22.0	22.0	20	28.0
	Mold Shrinkage (MD)	ASTM D955	Flow at 3.2mm	%	0.5-0.7	0.5-0.7	0.5-0.7	0.5-0.7	0.5-0.7	0.5-0.7	0.5-0.7
Mold Shrinkage (TD)	ASTM D955	X-Flow at 3.2mm	%	0.5-0.7	0.5-0.7	0.5-0.7	0.5-0.7	0.5-0.7	0.5-0.7	0.5-0.7	
Mechanical	Tensile Strength at yield	ASTM D638	5mm/min	kgf/cm ²							
			50mm/min		640	640	640	640	640	640	640
	Flexural Strength	ASTM D790	2.8mm/min	kgf/cm ²	920	920	920	920	920	920	920
			30mm/min								
	Flexural Modulus	ASTM D790	2.8mm/min	kgf/cm ²	23,000	23,000	23,000	23,000	23,000	23,000	23,000
			30mm/min								
Izod Impact Strength (notched)	ASTM D256	1/4inch at 23°C	kgf/cm/cm	15	15	15	10	10	10	10	
		1/8inch at 23°C		87	87	87	75	75	75	70	
Rockwell Hardness	ASTM D785	R-scale	-	120	120	120	120	120	120	120	
Thermal	Heat Deflection Temperature	ASTM D648	18.56kgf/cm ² , 6.4mm	°C	127	127	127	125	125	125	123
			4.6kgf/cm ² , 6.4mm		137	137	137	136	136	136	135
Flame	Flammability	UL94	HB	mm							
			V-2		0.75-3.0	0.75-3.0	0.75-3.0	0.75-3.2	0.75-3.2	0.75-3.2	0.8-3.2

					General						
Properties		Test Method	Condition	Unit	SC-1100R	SC-1100UR	SC-1102UR	SC-1220R	SC-1220UR	SC-1222UR	SC-1280UR
Physical	Melt Flow Index	ISO 1133	250°C, 10kg	g/10min							
			300°C, 1.2kg		11.5	11.5	11.5	22.0	22.0	20	28.0
Mechanical	Tensile Strength at yield	ISO 527	5mm/min	MPa							
			50mm/min		64	64	64	64	64	64	64
	Flexural Strength	ISO 178	2mm/min	MPa	92	92	92	92	92	92	
	Flexural Modulus	ISO 178	2mm/min	MPa	2,300	2,300	2,300	2,300	2,300	2,300	
	Izod Impact Strength (notched)	ISO 180 1A	at 23°C, 4mm	kJ/m ²	80	80	80	65	65	65	60
	Charpy Impact Strength (V-notched)	ISO 179 1eA	at 23°C, 4mm	kJ/m ²	75	75	75	60	60	60	50
Rockwell Hardness	ISO 2039-2	R-Scale	-	120	120	120	120	120	120	120	
Thermal	Heat Deflection Temperature (Unannealed)	ISO 75-2	1.8MPa, 4.0mm	°C	125	125	125	123	123	123	122
			0.45MPa, 4.0mm		137	137	137	136	136	136	135
	VICAT Softening Temperature	ISO R 306	B/50	°C	146	146	146	145	145	145	144

General		Extrusion			Automotive					EtO Sterilization		Gamma Sterilization		
QC-1100UR	QC-1220UR	SC-1060P	SC-1060U	SC-1063U	LT-1100	LT-1220	TP-1020U	IV-1075C	IW-1015	ML-1010R	ML-1020R	MR-1005	MR-1015	MR-1020
1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.19	1.19	1.18	1.2	1.2	1.2	1.2	1.2
									17.0	11.5	22	7.5	18	23
11.5	22.0	6.0	6.0	6.0	11.5	22.0	20.0	7.0	11.0	0.5-0.7	0.5-0.7	0.4-0.7	0.4-0.7	0.4-0.7
0.5-0.7	0.5-0.7	0.5-0.7	0.5-0.7	0.5-0.7	0.5-0.7	0.5-0.7	0.4-0.7	0.5-0.8	0.4-0.7	0.5-0.7	0.5-0.7	0.4-0.7	0.4-0.7	0.4-0.7
0.5-0.7	0.5-0.7	0.5-0.7	0.5-0.7	0.5-0.7	0.5-0.7	0.5-0.7	0.4-0.7	0.5-0.8	0.4-0.7					
							600	620						
640	640	660	660	660	640	640			690	640	640	660	640	640
920	920	930	930	930	920	920			960	920	920	920	920	920
								920	920					
23,000	23,000							920	920					
		23,000	23,000	23,000	23,000	23,000			23,000	23,000	23,000	23,000	23,000	23,000
15	10							23,000	23,000					
87	75	15	15	15	15	10	11	70	44	15	10	10	10	10
120	120	120	120	120	120	120	121	121	121	120	120	120	120	120
127	125	128	128	128	127	125	128	124	112	127	125	125	123	122
137	136	138	138	138	137	136	140	135		137	136	135	133	132
		2.6-3.2	2.6-3.2	2.6-3.2										
1.6-3.2	1.6-3.2	1.6-2.0	1.6-2.0	1.6-2.0	0.8-3.0	0.8-3.2				0.8-3.0	0.8-3.0	0.8, 3.0		

General		Extrusion			Automotive					EtO Sterilization		Gamma Sterilization		
QC-1100UR	QC-1220UR	SC-1060P	SC-1060U	SC-1063U	LT-1100	LT-1220	TP-1020U	IV-1075C	IW-1015	ML-1010R	ML-1020R	MR-1005	MR-1015	MR-1020
									17					
11.5	22.0	6.0	6.0	6.0	11.5	22.0	20.0	7.0	11.0	11.5	22	7.5	18	23
									57	59				
64	64	66	66	66	64	64			65	64	64	66	64	64
92	92	93	93	93	92	92	90	93	98	92	92	92	92	92
2,300	2,300	2,300	2,300	2,300	2,300	2,300	2,130	2,100	2,600	2,300	2,300	2,300	2,300	2,300
82	65	85	85	85	80	65	52	62	20	80	65	85	70	65
75	60	80	80	80	75	60	64	74	23	75	60			
120	120	120	120	120	120	120	122	121	121	120	120			
125	123	126	126	126	125	123	123	118	110	125	123	123	121	120
137	136	138	138	138	137	136	139	133	128	137	136	135	133	132
146	145	147	147	147	146	145	147	141		146	145	143	141	140



Flame Retardant PC/ABS

	Properties	Test Method	Condition	Unit	General								
					NH-1015B	NH-1015V	NH-1013U	NH-1021	NH-1037	NH-1033	NH-1041		
ASTM	Physical	Specific Gravity	ASTM D792	-	-	1.18	1.17	1.18	1.2	1.19	1.18	1.18	
		Melt Flow Index	ASTM D1238	g/10min	220°C, 5kg								
					220°C, 10kg	23	30	33	28	19	35	27	
					250°C, 2.16kg								
					250°C, 5kg								
					250°C, 10kg								
	260°C, 2.16kg												
Mold Shrinkage(MD)	ASTM D955	Flow at 3.2mm	%	0.5 - 0.7	0.4-0.7	0.4-0.7	0.4 - 0.6	0.4-0.7	0.40-0.70	0.4-0.7			
Mold Shrinkage(TD)	ASTM D955	X-Flow at 3.2mm	%	0.5 - 0.7	0.4-0.7	0.4-0.7	0.4 - 0.6	0.4-0.7	0.40-0.70	0.4-0.7			
Mechanical	Tensile Strength at yield	ASTM D638	5mm/min 50mm/min	kgf/cm ²	630	650	630	600	670	600	640		
	Flexural strength	ASTM D790	2.8mm/min	kgf/cm ²	880	890	920	950	1,000	900	900		
	Flexural Modulus	ASTM D790	2.8mm/min	kgf/cm ²	23,000	24,000	25,000	26,000	27,000	23,000	25,000		
	Izod Impact Strength (notched)	ASTM D256	1/4inch at 23°C	kgf-cm/cm				8	19	15			
			1/8inch at 23°C		57	55	50	30	60	60	65		
Rockwell Hardness	ASTM D785	R-scale	-		118	118	120	120	119	119			
Thermal	Heat Deflection Temperature	ASTM D648	18.56kgf/cm ² , 6.4mm	°C		86	88	89	100	92	93		
			4.6kgf/cm ² , 6.4mm				97	108					
Flame	Flammability	UL94	HB	mm									
			V-2										
			V-1		1.2, 1.3	1.2, 1.3	1.2						
			V-0		1.5, 2.0, 2.1, 1.5, 2.0, 2.1, 2.5, 3.0	1.5-3.0	1mm, 3mm	1.5-3.0	1.5, 3.0	1.5-3.0			
			5VA		3	3	3						
			5VB		2.5, 2.1, 2.5	2.0, 2.1, 2.5	2.0-3.0		2.5-3.0	2.0-3.0			

General											Reinforced			
ABF-1030G	NE-1030	NH-1090	NH-1098	NE-1060	NH-1034R	NH-1047	NH-1048	NH-1150HH	NE-1306	NM-1229I	HM-1100F	LS-1150G	LS-1159	LS-1159S
1.23	1.18	1.19	1.17	1.18	1.19	1.19	1.18	1.28	1.44	1.34	1.26	1.28	1.28	1.28
										40				
40	53	46	45	47	40		36	29	22		26			
													14	9
										25				
													24	
										16				
0.4-0.7	0.4-0.7	0.4-0.7	0.4-0.7	0.4-0.7	0.4-0.7	0.4-0.7	0.4-0.7	0.2-0.5	0.05-0.35	0.2 - 0.5	0.3 - 0.6	0.2-0.5	0.2-0.5	0.2-0.5
0.4-0.7	0.4-0.7	0.4-0.7	0.4-0.7	0.4-0.7	0.4-0.7	0.4-0.7	0.4-0.7	0.2-0.5	0.15-0.45	0.2 - 0.5	0.3 - 0.6	0.2-0.5	0.2-0.5	0.2-0.5
										650	520	800	900	800
500	640	640	630	630	580	610	630	640						
800	890	850	850	880	850	900	850	940	1,000	890	1,000	1,400	1,200	1,200
21,000	25,000	24,000	25,000	25,000	23,000	26,000	24,000	44,000	72,000	42,000	40,000	46,000	48,000	45,000
8	12	18		15		30	17	6		3.5	8		6	8
10	50	60	45	51	50	65	50	6	4	3	8	9	6	8
119		118	110	117	118	117	116	110	120		118	121	120	120
92	83	87		82	88	85	79	86	106	84	93	127	91	90
		95						89			95			93
		0.8												
	1							0.4				0.75-3.0		
		1.5					1	1		1			1.5	1.5
1.5, 3.0	1.5, 2.0, 3.0	2.0, 3.0	1.5,3.0	1.5-3.0	1.2	1.5-3.0	1.2 - 3.0	1.2, 3.0	1.5/3.0	1.5, 2.0-2.2	1.5, 2.0, 3.0		2.0, 2.5, 3.0	3
					2.5									
		2.0, 3.0		2.0-3.0	2	2.0-3.0	1.5		2	2.0-2.2				

	Properties	Test Method	Condition	Unit	General							
					NH-1015B	NH-1015V	NH-1013U	NH-1021	NH-1037	NH-1033	NH-1041	
ISO	Physical	Melt Flow Index	ISO 1133	g/10min	220°C, 5kg							
					220°C, 10kg	23	30	33	28	19	35	27
					250°C, 2.16kg							
					250°C, 5kg							
					250°C, 10kg							
260°C, 2.16kg												
Mechanical	Tensile Strength at yield	ISO 527	5mm/min 50mm/min	MPa	60	61	60	60	61	60	65	
	Flexural Strength	ISO 178	2mm/min	MPa	88	89		95	92	90	90	
			2.8mm/min				90					
	Flexural Modulus	ISO 178	2mm/min 2.8mm/min	MPa	2,450	2,550		2,600	2,500	2,300	2,550	
	Izod Impact Strength (notched)	ISO 180 1A	at 23°C, 4mm	kJ/m ²	40	14	30	30	32	55	35	
					44	17	30	20	36	30	18	
Charpy Impact Strength (V-notched)	ISO 179 1eA	at 23°C, 4mm	kJ/m ²	44	17	30	20	36	30	18		
Rockwell Hardness	ISO 2039-2	R-Scale	-	118	118	118	120	120	119	119		
Thermal	Heat Deflection Temperature (Unannealed)	ISO 75-2	1.8MPa, 4.0mm	°C	81	82	82	85	93	86	85	
			0.45MPa, 4.0mm		93	94		96	105			
	Heat Deflection Temperature (Annealing)	ISO R 306	1.8MPa, 4.0mm	°C	93	97		100				
			0.45MPa, 4.0mm		98	102		106				
VICAT Softening Temperature	ISO R 306	B/50	°C	98	100	98	100	110	107	105		
		B/120		100	103		114					

General											Reinforced			
ABF-1030G	NE-1030	NH-1090	NH-1098	NE-1060	NH-1034R	NH-1047	NH-1048	NH-1150HH	NE-1306	NM-1229I	HM-1100F	LS-1150G	LS-1159	LS-1159S
40	53	46	45	47	40		36	29	22		26			
										40				
													14	9
										25				
													24	
										16				
											65	50	80	86
50	60	60	60	61	55	60	60	64						
80	90		90	90		90	90	90	100	90	100	135	110	
		90		80										120
2,100	2,500		2,700	2,550		2,600	2,500	4,400	7,200	4,100	4,000	4,600	5,000	
		2,600		2,300										4,500
10	16	39	25		15			6	6	3.5	8	8.2	6	8
10	17	46	26	12	15	20	45	6.4	6	3	7	9.9	6	8
119	118	118	110	117	118	117	116	110	120		118	121	120	120
89	77	82		78	82	78	75	80	104	83	92	125	91	90
	90	93						85			94	127		93
	85													
	93													
105	93	98	96	91	100	94	90	95	115		98		97	
	95													



High Impact Strength PC & PC/GF

					General				
Properties		Test Method	Condition	Unit	AH-1080	CF-1050	CF-1070	GM-1080	
ASTM	Physical	Specific Gravity	ASTM D792	-	-	1.18	1.18	1.2	1.2
		Melt Flow Index	ASTM D1238	250°C, 10kg	g/10min	18	18	13	28
				300°C, 1.2kg		11.5	8	16	
		Mold Shrinkage (MD)	ASTM D955	Flow at 3.2mm	%	0.4-0.7	0.4-0.7	0.4-0.7	0.4-0.7
Mold Shrinkage (TD)	ASTM D955	X-Flow at 3.2mm	%	0.4-0.7	0.4-0.7	0.4-0.7	0.4-0.7		
ASTM	Mechanical	Tensile Strength at yield	ASTM D638	5mm/min	kgf/cm ²				
				50mm/min		580	600	600	600
		Flexural Strength	ASTM D790	2.8mm/min	kgf/cm ²	800	850	850	800
		Flexural Modulus	ASTM D790	2.8mm/min	kgf/cm ²	21,000	20,000	20,000	20,000
Izod Impact Strength (notched)	ASTM D256	1/4inch at 23°C	kgf cm/cm		55	55			
		1/8inch at 23°C		75	70	70	72		
Rockwell Hardness	ASTM D785	R-scale	-	118	120		116		
ASTM	Thermal	Heat Deflection Temperature	ASTM D648	18.56kgf/cm ² , 6.4mm	°C	129	129	125	
				4.6kgf/cm ² , 6.4mm			137		
ASTM	Flame	Flammability	UL94	HB	mm	0.8, 3.0			
				V-2		0.8, 2.5, 3.0	0.8, 2.5, 3.0	0.8, 3.0	
				V-1					

ISO	Physical	Melt Flow Index	ISO 1133	250°C, 10kg	g/10min	18	18	13	28
				300°C, 1.2kg			11.5	8	16
ISO	Mechanical	Tensile Strength at yield	ISO 527	5mm/min	MPa				
				50mm/min		51	55	58	60
		Flexural Strength	ISO 178	2mm/min	MPa	80	80	80	80
		Flexural Modulus	ISO 178	2mm/min	MPa	2,200	2,100	2,100	2,000
		Izod Impact Strength (notched)	ISO 180 1A	at 23°C, 4mm	kJ/m ²	59	60	65	53
		Charpy Impact Strength (V-notched)	ISO 179 1eA	at 23°C, 4mm	kJ/m ²	70	65	70	58
Rockwell Hardness	ISO 2039-2	R-Scale	-	118	120		116		
ISO	Thermal	Heat Deflection Temperature (Unannealed)	ISO 75-2	1.8MPa, 4.0mm	°C	125	125	115	
				0.45MPa, 4.0mm			136	130	
		VICAT Softening Temperature	ISO R 306	B/50	°C	143	141	140	139

General	Reinforced					
CF-1021T	AH-3100	AH-3200	LS-3302	CF-3200HF	CF-3300HF	GI-3103
1.18	1.23	1.32	1.4	1.33	1.4	1.25
36	24	27	12	23	22	33
19				11		21
0.4-0.7	0.2-0.5	0.2-0.5	0.1-0.4	0.2-0.5	0.1-0.4	0.3-0.6
0.4-0.7	0.3-0.6	0.3-0.6		0.3-0.6	0.3-0.6	0.4-0.7
	800	1000	1300	1000	1200	560
650						
850	1200	1500	1800	1400	1700	880
21,000	34,000	55,000	75,000	56,000	66,000	32,000
10	17	16	12	20	15	16
70	20	17	17	19	18	23
120			120	116	115	115
120	136	138	140	141	140	131
133			144	145	143	136
	0.8, 3.0	0.8, 3.0				0.8, 3.2
			0.8	0.8	0.8	
			3.2	3.2	3.2	
36	24	27	12	23	22	33
19				11		21
	80	100	120	100	125	53
60						
92	120	150	175	170	180	85
2,300	3,500	5,500	8,300	6,000	7,300	3,160
60	18	17	12	19	17	18
60	15	18	12	25	18	19
120			120	116	115	115
130	133	135	140	139	138	130
133			144	144	143	134
140			149	148	143	126

High Heat Resistant EP

ASTM	Properties	Test Method	Condition	Unit	PCT			PPA				
					TK-2046MA	TK-2050LP	TK-2020T	HX-4302G	HX-4452G	HA-4302G	HA-4350HP	HA-4400MP
Physical	Specific Gravity	ASTM D792	-	-	1.6	1.71	1.31	1.43	1.58	1.34	1.47	1.44
	Melt Flow Index	ASTM D1238	300°C, 1.2kg	g/10min	18	22	25					
			330°C, 2.16kg			20	8.5	5				
	Mold Shrinkage (MD)	ASTM D955	Flow at 3.2mm	%	0.5-0.8	0.4-0.7	0.5-0.8	0.3-0.6	0.2-0.4	0.3-0.6	0.3-0.6	0.1-0.3
Mold Shrinkage (TD)	ASTM D955	X-Flow at 3.2mm	%	0.5-0.8	0.4-0.7	0.8-1.1	0.5-0.8	0.4-0.6	0.5-0.8	0.4-0.7	0.3-0.5	
Mechanical	Tensile Strength at yield	ASTM D638	5mm/min	kgf/cm ²	740	600	710	1,450	1,500		2,000	1,750
	Flexural Strength	ASTM D790	2.8mm/min	kgf/cm ²	1,100	750	1,100	2,200	2,400	2,300	2,550	2,400
	Flexural Modulus	ASTM D790	2.8mm/min	kgf/cm ²	65,000	50,000	44,300	95,000	135,000	80,000	112,000	90,000
	Izod Impact Strength (notched)	ASTM D256	1/4inch at 23°C	kgf-cm/cm	3	2	4	5	6			10
			1/8inch at 23°C		3.6	2.8	5.8	5	6	11	8.5	10
Rockwell Hardness	ASTM D785	R-scale	-				120	125	125	110		
Thermal	Heat Deflection Temperature	ASTM D648	18.56kgf/cm ² , 6.4mm	°C	250	195	255	280	285	280	280	275
	Yellow Index	ASTM D1925	3.2mm	-		5↓						
Optical	Transmissivity	ASTM D1003	1mm	%			60↑					
Flame	Flammability	UL94	HB	mm	1.5, 3.0	1.5,3.0						
			V-0				0.4	0.4-3.2				

ISO	Properties	Test Method	Condition	Unit	PCT			PPA				
					TK-2046MA	TK-2050LP	TK-2020T	HX-4302G	HX-4452G	HA-4302G	HA-4350HP	HA-4400MP
Physical	Melt Flow Index	ISO 1133	300°C, 1.2kg	g/10min	18	22	25					
			330°C, 2.16kg			20	8.5	5				
Mechanical	Tensile Strength at yield	ISO 527	5mm/min	MPa				145			200	175
			10mm/min		60	60	86					
		50mm/min					150					
	Flexural Strength	ISO 178	2mm/min	MPa	105	75	124	220	240	220	250	240
	Flexural Modulus	ISO 178	2mm/min	MPa	6,900	5,000	4,350	9,500	13,500	7,500	11,000	9,000
	Izod Impact Strength (notched)	ISO 180 1A	at 23°C, 4mm	kJ/m ²		2	5.8	5	6		8.5	10
Charpy Impact Strength (V-notched)	ISO 179 1eA	at 23°C, 4mm	kJ/m ²	3.6	3	6	5	6	13		10	
Rockwell Hardness	ISO 2039-2	R-Scale	-				120	128		110	100	
Thermal	Heat Deflection Temperature (Unannealed)	ISO 75-2	1.8MPa, 4.0mm	°C	250	195	255	280	285	280	280	275

Super Structural EP

ASTM	Properties	Test Method	Condition	Unit	PA, PPA						PPS
					HM-4450C	HM-4300G	HM-4500G	HM-4650G	HM-4650LW	MKD-1016	XP-2130A
Physical	Specific Gravity	ASTM D792	-	-	1.39	1.41	1.58	1.79	1.78	1.64	1.65
	Melt Flow Index	ASTM D1238	300°C, 1.2kg	g/10min						10	
			315.5°C, 5kg								115
			330°C, 2.16kg			25		20			
Mold Shrinkage (MD)	ASTM D955	Flow at 3.2mm	%	0.1-0.3	0.3-0.6	0.2-0.5	0.1-0.4	0.1-0.4	0.2-0.5	0.3-1.2	
Mold Shrinkage (TD)	ASTM D955	X-Flow at 3.2mm	%	0.1-0.3	0.7-0.9	0.4-0.7	0.4-0.7	0.4-0.7	0.3-0.6	0.3-1.2	
Mechanical	Tensile Strength at yield	ASTM D638	5mm/min	kgf/cm ²	3,150	2,000	2,500	2,800	2,800	2,700	1,400
	Flexural Strength	ASTM D790	2.8mm/min	kgf/cm ²	4,700	2,500	3,500	3,100	3,900	3,400	2,000
	Flexural Modulus	ASTM D790	2.8mm/min	kgf/cm ²	340,000	95,000	150,000	190,000	200,000	156,000	100,000
	Izod Impact Strength (notched)	ASTM D256	1/4inch at 23°C	kgf-cm/cm		8	13	10	15	12	8
			1/8inch at 23°C		9	8	13	13	15	13	9
Rockwell Hardness	ASTM D785	R-scale	-		120	120	120	120	121	120	
Thermal	Heat Deflection Temperature	ASTM D648	18.56kgf/cm ² , 6.4mm	°C		295	240	248	245	250	275
		ASTM D648	4.6kgf/cm ² , 6.4mm								282
Flame	Flammability	UL94	HB	mm		0.8-3.0	0.8, 3.0			0.8,1.5,3.0	
			V-0								0.75

ISO	Properties	Test Method	Condition	Unit	PA, PPA						PPS
					HM-4450C	HM-4300G	HM-4500G	HM-4650G	HM-4650LW	MKD-1016	XP-2130A
Physical	Melt Flow Index	ISO 1133	275°C, 2.16kg	g/10min						13	
			300°C, 1.2kg							10	
		315.5°C, 5kg								115	
		330°C, 2.16kg			25		20				
Tensile Strength at yield	ISO 527	5mm/min	MPa	310	200	250	280	280	260	128	
Flexural Strength	ISO 178	2mm/min	MPa		250	350	310	390	330		
		2.8mm/min		460					190		
Flexural Modulus	ISO 178	2mm/min	MPa		9,500	15,000	19,000	20,000	16,000		
		2.8mm/min		33,000					10,000		
Izod Impact Strength (notched)	ISO 180 1A	at 23°C, 4mm	kJ/m ²	9	8	13	13	15	17	11	
Charpy Impact Strength (V-notched)	ISO 179 1eA	at 23°C, 4mm	kJ/m ²		8	13		15	17	11	
Rockwell Hardness	ISO 2039-2	R-Scale	-		120	120	120	120	121	116	
Thermal	Heat Deflection Temperature (Unannealed)	ISO 75-2	1.8MPa, 4.0mm	°C		295	240	248	245	250	275
			0.45MPa, 4.0mm								289

Metal Adhesion, LDS Materials

					Metal Adhesion	LDS (LASER DIRECT STRUCTURING)										
Properties					Test Method	Condition	Unit	JS-5207LD	LP-1025	LP-3105	LP-3305	LP-3303	LP-1010	LP-1011	LP-4300	LP-3305GW
Physical	Specific Gravity	ASTM D792	-	-	1.37	1.28	1.33	1.43	1.47	1.19	1.21	1.46	1.44			
	Melt Flow Index	ASTM D1238	250°C, 10kg	g/10min	20			26	28	36						
			280°C, 2.16kg													
			300°C, 1.2kg			24	20	14	17	15	17	16				
	Mold Shrinkage (MD)	ASTM D955	Flow at 3.2mm	%	0.5-0.8	0.4-0.7	0.3-0.6	0.1-0.4	0.1-0.3	0.4-0.7	0.4-0.7	0.3-0.4	0.1-0.4			
Mold Shrinkage (TD)	ASTM D955	X-Flow at 3.2mm	%	0.6-0.9	0.4-0.7	0.4-0.7	0.3-0.6	0.3-0.6	0.4-0.7	0.4-0.7	0.6-0.9	0.3-0.6				
Mechanical	Tensile Strength at yield	ASTM D638	5mm/min	kgf/cm ²	1,000			750	900	960			1,200	870		
	50mm/min		580				530	530								
	Flexural Strength	ASTM D790	2.8mm/min	kgf/cm ²	1,700	840	1,100	1,300	1,400	800	800	1,400	1,300			
	Flexural Modulus	ASTM D790	2.8mm/min	kgf/cm ²	57,000	22,000	35,000	54,000	69,000	23,000	25,000	80,000	59,000			
	Izod Impact Strength (notched)	ASTM D256	1/4inch at 23°C	kgf-cm/cm	11	15	9	8	10	47	25			8		
			1/8inch at 23°C		11	22	10	11	60	50	3	9				
Rockwell Hardness	ASTM D785	R-scale	-	112	118	116		115	113	116	120					
Thermal	Heat Deflection Temperature	ASTM D648	18.56kgf/cm ² , 6.4mm	°C	208			119	121	125	110	115	281	120		
			4.6kgf/cm ² , 6.4mm				132	125	124							
	VICAT Softening Temperature	ISO R 306	B/50	°C		133			126	127	126					
Flame	Flammability	ASTM D1003	HB	mm		0.8, 3.0		0.8, 3.0	0.8, 3.0	0.8, 3.0	0.8,3.0					

Physical	Melt Flow Index	ISO 1133	250°C, 10kg	g/10min			26	28	36							
			300°C, 1.2kg		24	20	14	17	15	17	16					
Mechanical	Tensile Strength at yield	ISO 527	5mm/min	MPa	98			78	90	100			120	90		
			50mm/min		55			55	55							
	Flexural Strength	ISO 178	2mm/min	MPa	166	82	110	130	120	75	75	140	130			
	Flexural Modulus	ISO 178	2mm/min	MPa	5,590	2,200	3,500	5,400	6,500	2,300	2,500	8,000	6,000			
	Izod Impact Strength (notched)	ISO 180 1A	at 23°C, 4mm	kJ/m ²	11	20	10	10	10	60	50	3	10			
	Charpy Impact Strength (V-notched)	ISO 179 1eA	at 23°C, 4mm	kJ/m ²	11	15	8		11	63	55	4				
	Rockwell Hardness	ISO 2039-2	R-Scale	-	111	118	116		115	113	116	120				
Thermal	Heat Deflection Temperature (Unannealed)	ISO 75-2	1.8MPa, 4.0mm	°C	208			117	119	124	108	115	281	117		
			0.45MPa, 4.0mm				133	124	124							
	VICAT Softening Temperature	ISO 306	B/50	°C		133			126	127	126					

Eco-friendly materials

					Mechanical Recycling													OBP (Ocean Bound Plastics)				
Properties					Test Method	Condition	Unit	GC-1022	GC-1025	GV-1025	GC-1045	GC-1017	GC-1150HC	GC-1048	GC-1055	GC-1151	GW-1053	GW-1055	GW-3203	GV-1005OP	GV-1155OP	GB-9302
Physical	Specific Gravity	ASTM D792	-	-	1.2	1.2	1.2	1.19	1.17	1.3	1.18	1.18	1.28	1.18	1.18	1.33	1.21	1.3	1.36			
	Melt Flow Index	ASTM D1238	220°C, 10kg	g/10min	22			55	46	32	38	41										
			250°C, 2.16kg										18									
			250°C, 5kg													35						
			250°C, 10kg			20	17						19	19	23							
260°C, 2.16kg											18	9										
260°C, 5kg											49											
300°C, 1.2kg								10														
Mold Shrinkage (MD)	ASTM D955	Flow at 3.2mm	%	0.4-0.7	0.4-0.7	0.4-0.7	0.4-0.7	0.3-0.6	0.2-0.5	0.3-0.6	0.3-0.6	0.1-0.4	0.4-0.7	0.4-0.7	0.2-0.5	0.4-0.7	0.2-0.5	0.1-0.4	0.4-0.7	0.2-0.5	0.1-0.4	
Mold Shrinkage (TD)	ASTM D955	X-Flow at 3.2mm	%	0.4-0.7	0.4-0.7	0.4-0.7	0.4-0.7	0.3-0.6	0.2-0.5	0.3-0.6	0.3-0.6	0.1-0.4	0.4-0.7	0.4-0.7	0.3-0.6	0.4-0.7	0.2-0.5	0.2-0.5	0.1-0.4	0.2-0.5	0.1-0.4	
Mechanical	Tensile Strength at yield	ASTM D638	5mm/min	kgf/cm ²					600			850					600					
	50mm/min		590		590	620	600	580	630	650	490	500	650	600								
Flexural strength	ASTM D790	2.8mm/min	kgf/cm ²	800	800	890	900	890	930	900	900	1200	830	860	1400	900	900	1,800				
Flexural Modulus	ASTM D790	2.8mm/min	kgf/cm ²	21,000	21,000	22,000	24,500	25,500	40,000	25,000	26,000	48,000	22,000	22,000	56,000	26,000	39,000	75,000				
Izod Impact Strength (notched)	ASTM D256	1/4inch at 23°C	kgf-cm/cm					15	5	17	15	6	60	18			5	8				
		1/8inch at 23°C		60	60	70	60	45	6	50	50	6	75	75	19	15	5	8				
Rockwell Hardness	ASTM D785	R-scale	-	120	120	118	116	115		116	117	118	116									
Thermal	Heat Deflection Temperature	ASTM D648	18.56kgf/cm ² , 6.4mm	°C	125	125	128	80	83			79	81	89	130	139	87	205				
			4.6kgf/cm ² , 6.4mm						91			143										
Flame	Flammability	UL94	HB	mm											0.8, 3.0			0.8, 3.0				
			V-2		0.75, 1.0	0.75, 1.0	0.75															
			V-1		1.2	1.2					1.5			1.5								
			V-0		1.5, 3.0	1.5, 3.0	1.0, 1.2, 1.5, 3.0	1.5, 3.0	2.0, 3.0	1.2, 3.0	1.2/1.5 / 3.0	1.2, 3.0	3	1.0, 3.0	1.2, 3.0							
			5VB						2.0, 3.0	1.5/3.0	1.5, 3.0											

Physical	Melt Flow Index	ISO 1133	220°C, 10kg	g/10min	22			55	46	32	38	41								
			250°C, 2.16kg										18							
			250°C, 5kg													35				
			250°C, 10kg			20	17						19	19	23					
			260°C, 2.16kg										18	9						
260°C, 5kg											49									
300°C, 1.2kg								10												
Mechanical	Tensile Strength at yield	ISO 527	5mm/min	MPa					60			85					60			
			50mm/min		55	55	60	60	59	60	64	50	51	60	60					
Flexural Strength	ISO 178	2mm/min	MPa	80	80	80	90	86	90	90	94	120	80	87	170	80	90			
		5mm/min																1,800		
Flexural Modulus	ISO 178	2mm/min	MPa	2,100	2,100	2,100	2,450	2,700	3,900	2,500	2,600	4,800	2,100	2,200	6,000	2,600	3,900			
		5mm/min																75,000		
Izod Impact Strength (notched)	ISO 180 1A	at 23°C, 4mm	kJ/m ²	50	50	70	30	17	5	40	40	5	65	19	12	5	8			
Charpy Impact Strength (V-notched)	ISO 179 1eA	at 23°C, 4mm	kJ/m ²	50	50	65	15	15	5	50	26	5	70	70	25	5				
	Rockwell Hardness	ISO 2039-2	R-Scale	-	120	120	118	116	115		116	117	118	116						
Thermal	Heat Deflection Temperature (Unannealed)	ISO 75-2	1.8MPa, 4.0mm	°C	121	121	126	78	77			76	78	86	128	137	85	205		
			0.45MPa, 4.0mm						86			142								
	VICAT Softening Temperature	ISO R 306	B/50	°C	140	141	143	95	93	98	90	91	95	142	142					
			B/120	°C					94							95				
			A/50	°C													97			



About LOTTE

A global group creating a better life for all, LOTTE endeavors to realize this ambitious dream.



New Today,
Better Tomorrow

MISSION

We enrich people's lives by providing superior products and services that our customers love and trust.

VISION

Lifetime
Value
Creator

Business Portfolio



About LOTTE CHEMICAL

LOTTE Chemical's technologies help to enrich our daily lives.

Field of Business



Basic Chemicals

Basic/Intermediate Petrochemicals
Polymer
Monomer

Ethylene, Propylene, BD, SM, OX, C5
PE, PP, PET
EO/EG/GE, EOA, PIA/PTA/MMA

Advanced Materials

High Performance Plastic Materials

STOREx Styrene & general product ABS, ABS Alloy, ASA, PP
INFINO Engineering plastics PC, PC Alloy & High Performance EP
Performance materials PP Compound, TPE, Modified adhesive resin, LFT, EPP

Construction Materials
Water Treatment Membrane

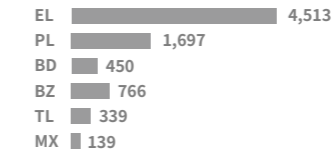
Acrylic solid surface, Engineered stone, Porcelain surface

Capacity

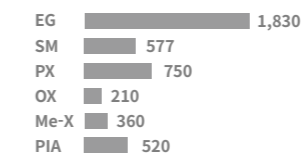
(Unit: KTA)



BASIC CHEMICALS



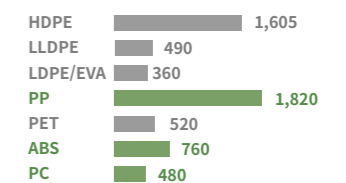
MONOMER



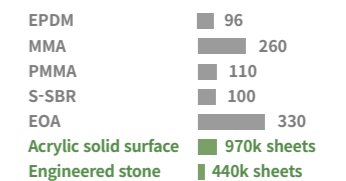
BASIC CHEMICALS



POLYMER



SPECIALTY



Sales & Production Sites



HQ/R&D

HQ Seoul
R&D Uiwang, Daejeon

PRODUCTION PLANT

Asia Malaysia, Uzbekistan, Pakistan, South Korea, China, Vietnam, India, Indonesia
Europe Hungary, Turkey (E-stone)
America U.S, Mexico

SALES CORPORATION

Asia China, Thailand, Japan
Europe Germany
America/Africa U.S, Nigeria

Employees Worldwide(2023)



Including major subsidiaries (Domestic & Overseas)

12,269

Business Performance(2023)

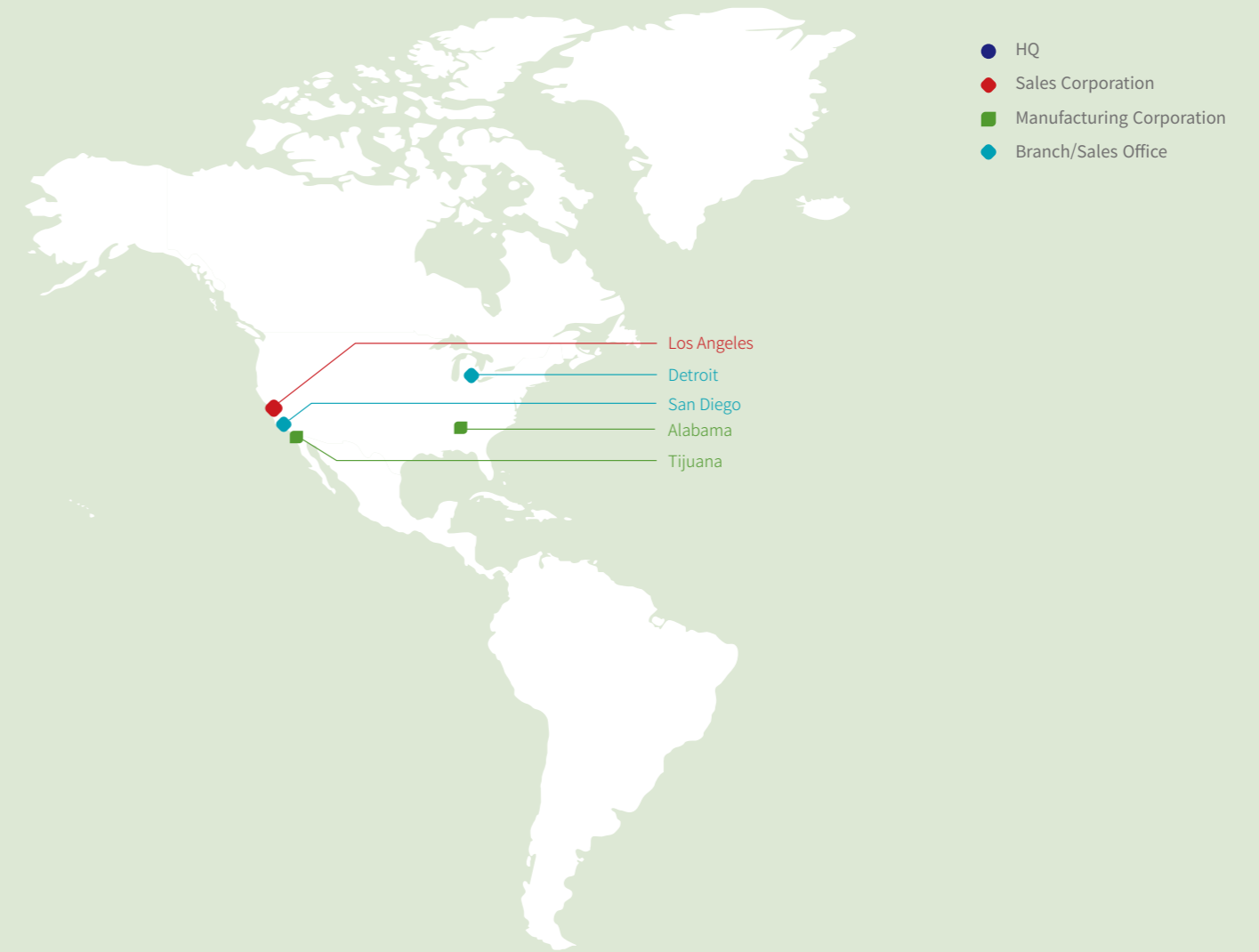
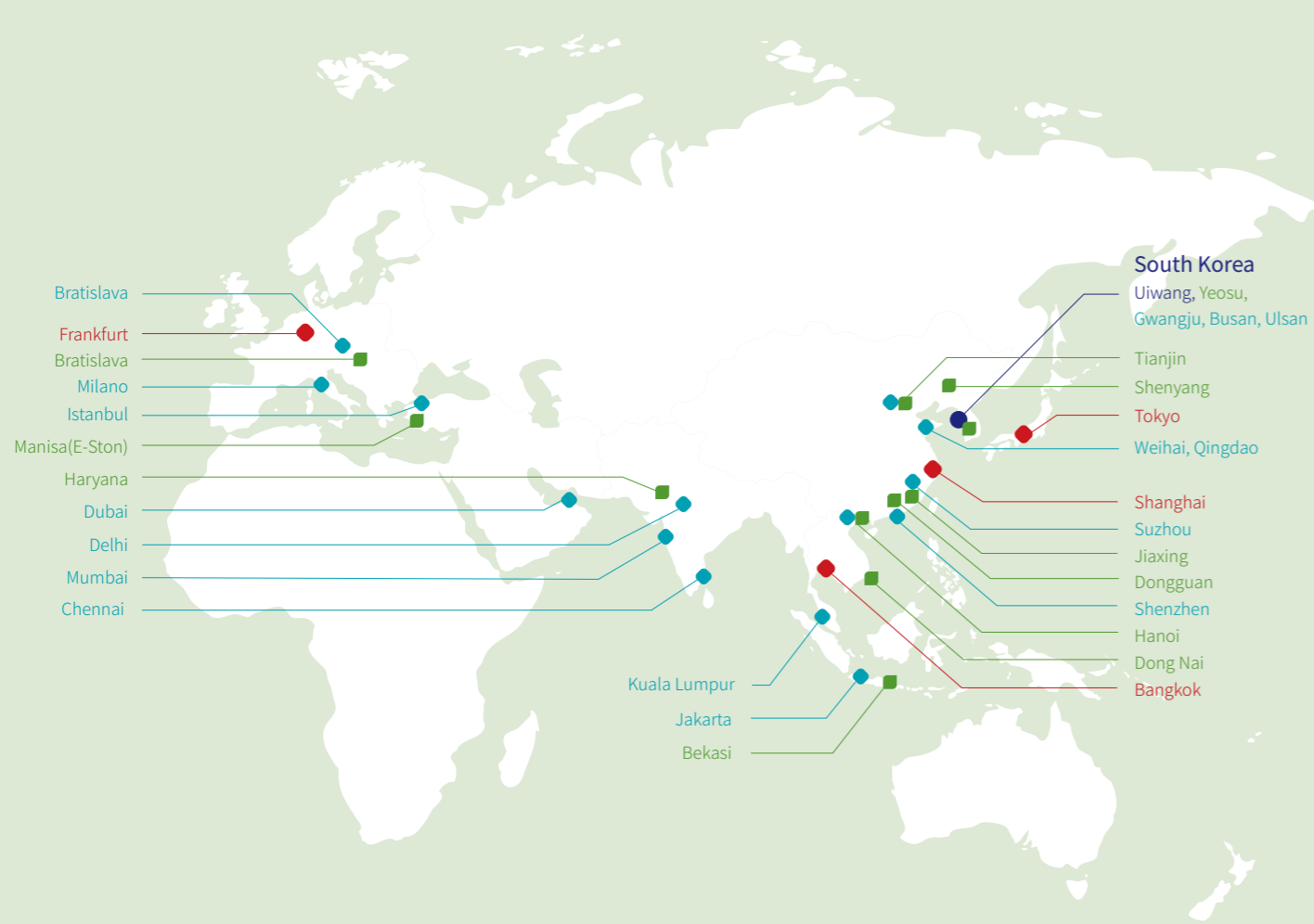
(Unit: KRW)



Sales **19,946** billion

Capital **20,232** billion

Global Network [Advanced Materials]



SOUTH KOREA

- Uiwang(Advanced Materials)**
- Yeosu Plant**
Tel. +82-61-689-1459
- Gwangju Service Office**
Tel. +82-62-945-1353
- Busan Service Office**
Tel. +82-51-465-6829
- Ulsan Sales Office**
Tel. +82-52-267-9804

Sales Corporation

- Los Angeles, U.S.A.**
Tel. +1-714-443-0907
- Frankfurt, Germany**
Tel. +49-6196-772-7260
- Shanghai, China**
Tel. +86-21-6270-3000
- Tokyo, Japan**
Tel. 81-3-6369-6429
- Bangkok, Thailand**
Tel. +66-2-624-6726

Production Plant

- ASIA**
- Tianjin, China**
Tel. +86-22-5868-0291(620)
- Dongguan, China**
Tel. +86-769-8300-9852
- Shenyang, China**
Tel. +86-138-4209-1356
- Jiaxing, China**
Tel. +86-135-1132-2242
- Dong Nai, Vietnam**
Tel. +84-33-270-9970
- Hanoi, Vietnam**
Tel. +84-33-270-9970
- Haryana, India**
Tel. +91-98184-59802
- Bekasi, Indonesia**
Tel. +62-21-5099-8896

- EUROPE**
- Tatabanya, Hungary**
Tel. +36-34-814-120
- Manisa, Turkey**
Tel. +90-236-213-03-43
- AMERICA**
- Tijuana, Mexico**
Tel. +52-664-627-4947
- Alabama, U.S.A.**
Tel. +1-334-895-2092

Branch/Sales Office

- ASIA**
- Suzhou, China**
Tel. +86-512-6262-0323
- Qingdao, China**
Tel. +86-137-0634-9919
- Shenzhen, China**
Tel. +86-755-8203-2323
- Tianjin, China**
Tel. +86-22-2836-4258
- Weihai, China**
Tel. +86-631-5666-812
- Hanoi, Vietnam**
Tel. +84-243-227-2071
- Kuala Lumpur, Malaysia**
Tel. +60-3-2080-5452

- Jakarta, Indonesia**
Tel. +62-21-2788-3391
- Chennai, India**
Tel. +91-44-4299-4255
- Delhi, India**
Tel. +91-124-690-1553
- Mumbai, India**
Tel. +91-22-6110-0177

MIDDLE EAST

- Dubai, U.A.E.**
Tel. +971-4-245-1400

- EUROPE**
- Bratislava, Slovakia**
Tel. +421-220-375-114
- Milano, Italy**
Tel. +39-02-02-0069-7182
- Istanbul, Turkey**
Tel. +90-212-437-8101(115)
- AMERICA**
- Detroit, U.S.A.**
Tel. +714-443-0901
- San Diego, U.S.A.**
Tel. +714-443-0901