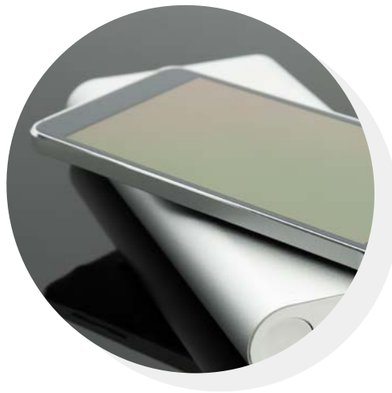
English

INFINO®



INFINO®

PC & PC Alloy,
High Performance EP

LOTTE CHEMICAL

www.lottechem.com (Corporate Website)

LOTTE CHEMICAL

INFINO®

High Performance Engineering Plastic

PC & PC Alloy, High Performance EP

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INFINITE

HIGH PERFORMANCE

DIFFERENTIATED

INFINO connotes a firm determination of LOTTE Chemical – Advanced Materials in engineering plastics industry to bring unlimited value to or surpassing the existing values in industries or our daily lives by focusing on the capacity and expandability of products.

Product Portfolio

PC & PC Alloy

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

High Performance EP

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

Transparent PC

Excellent

[optical and impact strength performance]

Key Features

- High transmittance, Optical property
- UV resistance
- Flowability
- Impact strength
- Various colors available
- Biocompatibility
- International certifications
- Gamma ray resistance
- Balanced Property

Medical

PRODUCT LINE-UP

General

- SC-1100(U)R
- SC-1102UR
- SC-1220(U)R
- SC-1222UR
- SC-1280UR (Lighting)
- QC-1100UR (1.6T V2, f1)
- QC-1220UR (1.6T V2, f1)

Extrusion

- SC-1060P
- SC-1060U
- SC-1063U

Automotive

- **General**
  - LT-1100
  - LT-1220
- **Diffusion**
  - TP-1020U
  - TP-1025U
- **Light stability**
  - IV-1025U*
- **Chemical resistant**
  - IV-1075C
- **Scratch resistance**
  - IW-1015

Medical

- **EtO sterilization**
  - ML-1010R(MFI 11.5)
  - ML-1020R(MFI 22)
- **R-ray sterilization**
  - **High impact**
    - MR-1005(MFI 7.5)
  - **Mid flow**
    - MR-1015(MFI 18)
  - **High flow**
    - MR-1020(MFI 20)

* Under Development

Applications

- HA
- Automotive
- Lighting
- Sundries
  Stationery, Toys
- Medical device

Flame Retardant PC

[Flame retardant solution]

with a material property balance

Key Features

- Flame retardant & Heat resistance
  Cl, Br free
- High modulus
- Flowability
- Impact strength
- Surface quality

PRODUCT LINE-UP

General

- **Semi-transparent**
  - **High flow(Semi-transparent)**
    - TN-1045M(0.8T V2)
    - TN-1045D (0.8T V2, Ductility)
  - **High heat**
    - TH-1100(2.0T V0)
    - TH-1108(3.0T V0,f1)
- **Opaque**
  - **General**
    - SA-1100(0.75T V2)
    - SA-1220(0.75T V2)
- **Opaque**
  - **High heat**
    - HN-1064I(1.5T V0, RTI)
    - NH-1035(2.0T 5VB)
    - HN-1024(1.0T V0, RTI)
    - HN-1022(1.0T V0, 3.0T 5VA, RTI)
  - **Flame retardant for thin-wall**
    - UF-1017S(0.8T V0)
    - UF-1002(0.75T V0, 2.5T 5VA)
    - UF-1063(0.6T V0)
    - UF-1064*(0.6T V0, High impact)
  - **High impact at low temp.**
    - UH-1062U(1.5T V0, f1, RTI)
    - UH-1064(1.5T V0, f1, RTI)
    - UH-1068(1.5T V0, f1, RTI)

Low Smoke

- **EN44545-2 Compliant**
  - FS-1030 (R22 HL3)

Reinforced

- **GF 10%**
  - **General**
    - HN-3102GH (1.5T V0, f1)
  - **High flow**
    - HN-3102G(1.5T V0, f1)
  - **High heat resistant**
    - HN-3104 (1.5T V0, 3.0T 5VA, RTI 746A, f1)
- **GF 30%**
  - **High impact**
    - NH-3303(0.8T V0)
- **GF 20%**
  - **High flow**
    - NH-3204G(2.0T V0)
    - NH-3208GL(0.75T V0)
  - **Surface quality**
    - NH-3200(0.75T V0)
  - **High heat**
    - HN-3204 (1.5T V0, 2.5T 5VA, f1)
  - **High impact**
    - NH-3203(0.8T V0)
- **NH-3203**
  - **General**
    - NH-3402F(2.5T V0)

* Under Development

% Reinforced Material Content

Applications

- E&E
- Energy
  Battery, Smart meter

Flame Retardant PC/ABS

[Flame retardant solution]
with a material property balance

Key Features

- **Flame retardant & Heat resistance** Cl, Br free
- **High modulus**
- **Flowability**
- **Impact strength**
- **Surface quality**

PRODUCT LINE-UP

General

- **High flow**
  - General
    - NE-1030(1.5T V0)
    - NH-1090(2.0T V0)
  - Anti-hydrolysis
    - NH-1013U(1.5T V0)
- **Flame retardant for thin-wall**
  - NH-1021(1.0T V0)
- **High heat resistant**
  - General
    - NH-1037(1.5T V0)
  - High flow
    - NH-1033(1.5T V0)
  - Chemical resistant
    - NH-1041(1.5T V0)
  - Anti-microbial
    - ABF-1030G(1.5T V0)
- **High flame retardant**
  - General
    - NE-1060(2.0T 5VB)
    - NH-1034R(2.5T 5VA, RTI)
  - Chemical resistant
    - NH-1049*(2.5T 5VB, GWIT)
    - NH-1047(2.0T 5VB)
    - NH-1048(1.5T 5VB)
- **High modulus**
  - General
    - NE-1306 (2.0T 5VB, MF 30%)
  - High impact
    - NH-1150HH (1.2T V0, MF 15%)

Reinforced

- **GF 10%**
  - General
    - HM-1100F (1.5T V0)
- **GF 15%**
  - General
    - LS-1150G(0.75T V2)
  - High impact
    - LS-1159S(2.5T V0)

% Reinforced Material Content

Applications

- **E&E**
- **Energy** Battery, Smart meter
- **OA**

High Impact PC & PC/GF

Thin-wall design solution with
[excellent impact strength]

Key Features

- **Flowability**
- **High modulus**
- **Impact strength** after painting process
- **Surface quality**
- **Chemical resistance** Cosmetic

PRODUCT LINE-UP

General

- **High impact**
  - AH-1080
  - CF-1050
  - CF-1070
- **Chemical resistant**
  - GM-1080
- **Transparent**
  - CF-1021T
  - CF-1031T

Reinforced

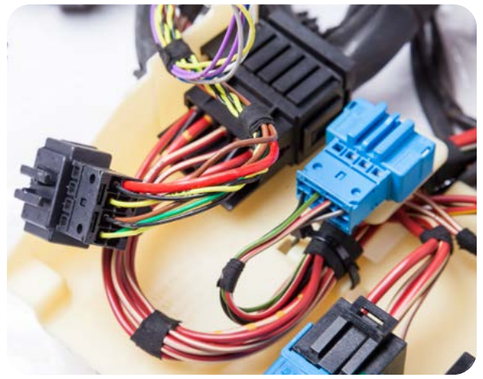
- **General**
  - GF 10%
    - AH-3100
    - AH-3101N
  - GF 20% - AH-3200
- **Dimensional stability**
  - GF 30% - LS-3302
- **High impact**
  - GF 20% - CF-3200HF
  - GF 30% - CF-3300HF
- **Surface Quality**
  - GF 10% - GI-3103
  - GF 20% - GI-3200

% Reinforced Material Content

Applications

- **Mobile device**
- **E&E**

High Heat Resistant EP



[Material reliability
with heat and thermal stability]

Key Features

- High modulus
- Long-term heat stability
- Quality stability

PRODUCT LINE-UP

PCT
(High Reflectivity/Reliability)

- **General**
  TK-2046MA
- **High Luminance**
  TK-2050LP
- **Reliability at high temp.**
  TK-2060HT
- **Transparent**
  TK-2025T

PPA
(High Heat Resistance/Impact Strength)

- **Connector (PA6T)**
  - **Flame retardant**
    - GF 10%
      HX-4302G(0.4T, V0)
    - GF 20%
      HX-4452G(0.4T, V0)
- **Automotive**
  - **General**
    - GF 30% - HA-4302G
  - **Metal Plating**
    - GF 35% - HA-4400MP

% Reinforced Material Content

Applications

- **LED bulb**
- **Connector**
- **Automotive**
  Engine Room,
  Interior, Exterior

Super Structural EP

Metal-replacement
[high modulus technology]

Key Features

- Metal replacement
- Thin-wall design
- Flowability

PRODUCT LINE-UP

PA, PPA
(Super Modulus)

- HM-4450C* (PPA/CF 45%, 34GPa, Metal replacement)
- 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 Strength/Anti-scratch)

- XP-2130A (PPS/GF 30%)

* Under Development
% Reinforced Material Content

Applications

- **Mobile device**
  Rear cover, Bracket
- **E&E**
  TV, Connector, Bobbin
- **HA**
  Coffee machine

Metal Adhesion, CCM, LDS

Functional solution for
[cutting-edge mobile technology]

Key Features

- High adhesiveness
- Impact strength, Low shrinkage
- Chemical resistance
  - Metal Adhesion
- Plating adhesion strength
- Impact strength
  - LDS
- Low Particle Generation
  - CCM

PRODUCT LINE-UP

Metal Adhesion

- PBT/GF
  - GF20% - JS-5207LD(Low permittivity)

LDS (Laser Direct Structuring)

- PC
  - LP-1022(Chemical resistant, 1.0T V0)
  - LP-1025
  - LP-1025I(Chemical resistant, High Imapact)
- PC/GF
  - GF10%- LP-3105(Chemical resistant)
  - GF20% - LP-3205
  - GF30%- LP-3305(Chemical resistant)
  - GF30%- LP-3303(Black)
- PC/ABS
  - LP-1010(Black)
  - LP-1011(White etc.)
- PA
  - GF30%- LP-4300
  - GF30%- LP-4304* (High Heat)
- Eco-friendly
  - GF30%- LP-3305GW(PCR20%)

* Under Development
% Reinforced Material Content

Applications

- **Mobile device**
  Rear cover
- **Internal antenna**
  Mobile device, E&E

Eco-friendly Materials

Various eco-friendly line-ups based on
[Eco Circular system]

Key Features

- **Eco-friendly process**
  Circular recycling
- **Flame retardant & Heat resistance**
  Cl, Br free
- **High modulus**
- **Flowability**
- **Colorability**

PRODUCT LINE-UP

Mechanical Recycling

- Flame retardant PC
  - General
    - GC-1025(1.5T V0, RTI) (50%)
    - GC-1029(1.5T V0, RTI) (90%)
    - GV-1029(1.0T V0, RTI) (90%)
    - GC-1002FR*(0.6T V0) (20%)
    - GW-1227M*(0.8T V2) (70%)
  - Reinforced
    - GC-3107(GF 10%, 1.5T V0) (70%)
    - GV-3107 (GF 10%, 1.5T V0, RTI, f1) (70%)
    - GC-3103*(GF 10%, 0.8T V0) (30%)
    - GC-3203*(GF 20%, 0.8T V0, RTI) (30%)
    - GC-3303*(GF 30%, 0.8T V0, RTI) (30%)
    - GC-3403*(GF 40%, 0.8T V0, RTI) (30%)
    - GC-3407HC* (GF 40%, 1.0T V-0) (30%)
- PC, PC/ABS
  - General
    - GW-1030 (30%)
  - Flame retardant
    - GC-1045 (1.5T V0) (30%)
    - GC-1017 (2.0T V0, 5VB) (30%)
    - GV-1016 (1.5T V0, RTI) (65%)
    - GC-1150HE (1.2T V0 MF 15%) (50%)
    - GC-1157DE (1.2T V0 MF 15%) (50%)
    - GV-1097 (1.5T V0) (75%)
    - GC-1048 (1.2T V0, 5VB) (30%)
    - GC-1055 (1.2T V0, 5VB) (50%)
    - GC-1087* (1.5T V0, 5VB) (75%)
    - GC-1088* (1.2T V0, 5VB) (80%)
  - Reinforced
    - GC-1151 (GF 15%, 1.5T V1) (20%)
- PC, PC/ABS
  - High heat resistant
    - GW-1003M* (30%)
    - GW-1007M* (65%)
  - High impact
    - GW-1083 (20%)
- High impact PC
  - General
    - GW-1053 (30%)
    - GW-1055 (50%)
    - GW-1059* (90%)
    - GW-1005TH (Transparent) (50%)
  - Reinforced
    - GW-3203 (30%)
- PC/PET
  - GW-2007* (40%)

OBP
(Ocean Bound Plastics)

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

Eco-friendly Naphtha
(Pyrolysis/Bio recycling)

- Available for all grades (~100%)

* % Recycled Material Content
* Under Development
% Reinforced Material Content

Automotive Materials

Integrated material solution
[Light-weight/Eco-friendly/Design]

PRODUCT LINE-UP

Interior

- **PC**
  - **General**
    - LT-1100
    - LT-1220
  - **Diffusion**
    - TP-1020
    - TP-1020U
    - TP-1025U
  - **High impact**
    - IV-1025U*
    - IV-1075C (Chemical resistant)
- **PC/ABS/GF**
  - GF 10% - WP-1100
  - GF 20% - WP-1200
- **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/PBT**
  - AE-3080C (Chemical resistant)
- **PC/PCTG**
  - AE-4033*
- **PBT/PET/GF**
  - AR-6300*
  - AR-6308*
- **PA/ABS**
  - SR-9325

Lighting

- **PC**
  - **General**
    - LT-1100
    - LT-1220
- **PC/ABS**
  - **General**
    - HP-1000XA
  - **High flow**
    - WP-1069
    - WP-1089
  - **High gloss/Low gas**
    - HP-1000XG
- **PBT**
  - ASF-9810FL
  - ASF-9810FM
  - ASF-9860
- **PPE**
  - IL-8020 *
  - IL-8030 *
  - IL-8040 *

Structure

- **PBT/ASA/GF**
  - AR-5300H
- **PA/PPE/CNT**
  - CA-7000C *
  - CA-7009
- **PBT/PET/GF**
  - AR-6200

PRODUCT LINE-UP

Exterior

- **PC/ABS**
  - **Painting**
    - WP-1059
  - **Metal Plating**
    - WP-1041(G)
    - WP-1051
    - WP-1061
    - WP-1071
- **PC/ABS/MF**
  - MF 17% - WP-1170M
- **PC/ASA**
  - **General**
    - WR-7000
  - **Heat resistant**
    - WX-7010
    - WX-7030
- **PC/PET**
  - **General**
    - AE-2030
  - **High flow**
    - AE-2039
  - **High modulus (MF)**
    - MF 5% - AE-2130
    - MF 15% - AE-2150
- **PC/PBT**
  - **High impact**
    - AE-3060
    - AE-3063I (High impact at low temp.)
- **PBT/PET/GF**
  - AR-6508

Power Train (EV Battery)

- **PC (FR)**
  - EFC-5087 (1.5T V0, Paint-free)
  - EFC-5048 (High heat resistant)
- **PC/ABS (FR)**
  - EFC-1087 (1.5T V0)
  - EMC-1067 (1.5T V0, PCR 10%)
  - GF 20% - EFC-1206 (3.0T V0)
  - GF 20% - EFC-1207 (1.5T V0)
- **PA (FR)**
  - GF 30% - EME-9307* (1.5T V0, PCR 40%)
  - GF 30% - EFE-9308* (0.8T V0)
- **PPE (FR)**
  - EFE-8107* (GF 10%, 1.5T V0)
  - EFE-8205 (GF 20%, 2.0T V0)
  - EFE-8107B (MF 10%, 1.5T V0, Dimension)
  - EFE-8108B*(MF 10%, 0.8T V0, Dimension)

* Under Development
% Reinforced Material Content

INFINO®

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Test Method and Unit

	Properties		Test Method	Unit		Properties		Test Method	Unit
ASTM	Physical	Specific Gravity	ASTM D792	-	ISO	Physical	Melt Flow Index	ISO 1133	g/10min
		Melt Flow Index	ASTM D1238	g/10min		Mechanical	Tensile Strength at Yield	ISO 527	MPa
		Mold Shrinkage	ASTM D955	%			Flexural Strength	ISO 178	MPa
	Mechanical	Tensile Strength at Yield	ASTM D638	kgf/cm^2			Flexural Modulus	ISO 178	MPa
		Flexural Strength	ASTM D790	kgf/cm^2			Izod Impact Strength	ISO 180 1A	KJ/m^2
		Flexural Modulus	ASTM D790	kgf/cm^2			Charpy Impact Strength	ISO 179 1eA	KJ/m^2
		Izod Impact Strength (Notched)	ASTM D256	kgf·cm/ cm			Rockwell Hardness	ISO 2039-2	-
		Rockwell Hardness	ASTM D785	-		Thermal	Heat Deflection Temperature (Unannealed)	ISO 75-2	℃
	Thermal	Heat Deflection Temperature	ASTM D648	℃			Heat Deflection Temperature (Annealing)	ISO 75-2	℃
	Appearance	Yellow Index	ASTM D1925	-			VICAT Softening Temperature	ISO 306	℃
	Flame	Flammability	UL94	mm					

※ For detailed product specificaitons, please refer to our company's product website.

High Heat Resistant/ Super Structural EP

Product Selection Guide

	Properties		Condition	High Heat Resistant EP							Super Structural EP						
				PCT			PPA				PA, PPA						PPS
				TK-2046MA	TK-2050LP	TK-2060HT	HX-4302G	HX-4452G	HA-4302G	HA-4400MP	HM-4450C	HM-4300G	HM-4500G	HM-4650G	HM-4650LW	MKD-1016	XP-2130A
ASTM	Physical	Specific Gravity	-	1.6	1.71	1.71	1.71	1.58	1.34	1.44	1.39	1.41	1.58	1.79	1.78	1.64	1.65
		Melt Flow Index	300°C, 1.2kg	30	22	25	25									10	
			315.5°C, 5kg														115
			330°C, 2.16kg				20	8.5	5			25		20			
		Mold Shrinkage	Flow at 3.2mm (MD)	0.5-0.8	0.4-0.7	0.4-0.7	0.3-0.6	0.2~0.4	0.3-0.6	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
			X-Flow at 3.2mm (TD)	0.5-0.8	0.4-0.7	0.4-0.7	0.5-0.8	0.4~0.6	0.5-0.8	0.3 ~ 0.5		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	5mm/min	740	600	600	1,450	1,500		1,750	3,150	2,000	2,500	2,800	2,800	2,700	1,400
		Flexural Strength	2.8mm/min	1,100	750	760	2,200	2,400	2,300	2,400	3,050	2,500	3,500	3,100	3,900	3,400	2,000
		Flexural Modulus	2.8mm/min	65,000	50,000	50,000	95,000	135,000	80,000	90,000	235,000	95,000	150,000	190,000	200,000	156,000	100,000
		Izod Impact Strength	(notched) 1/4inch at 23℃	3	2	2	5	6		10	8	8	13	10	15	12	8
			(notched) 1/8inch at 23℃	4	3	2	5	6	11	10	8	8	13	13	15	13	9
		Rockwell Hardness	R-scale				120	125	125		120	120	120	120	120	121	120
	Thermal	Heat Deflection Temperature	18.56kgf/cm^2, 6.4mm	250	195	195	280	285	280	275	300	295	240	248	245	250	275
			4.6kgf/cm^2, 6.4mm														282
	Appearance	Yellow Index	3.2mm	5↓	5↓	5↓											
	Flame	Flammability	HB	1.5, 3.0	1.5,3.0						1.5, 3.0	0.8~3.0	0.8, 3.0			0.8,1.5,3.0	
			V-0				0.4	0.4~3.2									0.75
ISO	Physical	Melt Flow Index	275°C, 2.16kg													13	
			300°C, 1.2kg	30	22	25										10	
			315.5°C, 5kg														115
			330°C, 2.16kg				20	8.5	5			25		20			
	Mechanical	Tensile Strength at Yield	5mm/min				145			175	310	200	250	280	280	260	128
			10mm/min	60	60	60											
			50mm/min					150				200	250	280	280	260	128
		Flexural Strength	2mm/min	105	75	76	220	240	220	240	440		350	310	390	330	
			2.8mm/min									250					190
		Flexural Modulus	2mm/min	6,900	5,000	5,000	9,500	13,500	7,500	9,000	31,000	9,500	15,000	19,000	20,000	16,000	
			2.8mm/min														10,000
		Izod Impact Strength	(notched) at 23°C, 4mm		2	2	5	6		10	8	8	13	13	15	17	11
		Charpy \mpact Strength	(V-notched) at 23°C, 4mm	3.6	3	2	5	6	13	10		8	13		15	17	11
		Rockwell Hardness	R-Scale				120	128		100	120	120	120	120	120	121	116
	Thermal	Heat Deflection Temperature (Unannealed)	1.8MPa, 4.0mm	250	195	195	280	285	280	275	300	295	240	248	245	250	275
			0.45MPa,														289

Transparent PC

Product Selection Guide

	Properties		Condition	General							
				SC-1100R	SC-1100UR	SC-1102UR	SC-1220R	SC-1220UR	SC-1222UR	SC-1280UR	QC-1100UR
ASTM	Physical	Specific Gravity	-	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
		Melt Flow Index	250°C, 10kg								
			300°C, 1.2kg	11.5	11.5	11.5	22	22	20	28	11.5
		Mold Shrinkage	Flow at 3.2mm(MD)	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	0.5~0.7
			X-Flow at 3.2mm(TD)	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	0.5~0.7
	Mechanical	Tensile Strength at Yield	5mm/min								
			50mm/min	640	640	640	640	640	640	640	640
		Flexural Strength	2.8mm/min	920	920	920	920	920	920	920	920
			30mm/min								
		Flexural Modulus	2.8mm/min	23,000	23,000	23,000	23,000	23,000	23,000	23,000	23,000
			30mm/min								
		Izod Impact Strength	(notched) 1/4inch at 23°C	15	15	15	10	10	10	10	15
			(notched) 1/8inch at 23°C	87	87	87	75	75	75	70	87
		Rockwell Hardness	R-scale	120	120	120	120	120	120	120	120
	Thermal	Heat Deflection Temperature	18.56kgf/cm^2, 6.4mm	127	127	127	125	125	125	123	127
			4.6kgf/cm^2, 6.4mm	137	137	137	136	136	136	135	137
		VICAT Softening Temperature	B/50	146	146	146	145	145	145	144	146
	Flame	Flammability	HB								
			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	0.75~3.0
ISO	Physical	Melt Flow Index	250°C, 10kg								
			300°C, 1.2kg	11.5	11.5	11.5	22	22	20	28	11.5
	Mechanical	Tensile Strength at Yield	5mm/min								
			50mm/min	64	64	64	64	64	64	64	64
		Flexural Strength	2mm/min	92	92	92	92	92	92	92	92
		Flexural Modulus	2mm/min	2,300	2,300	2,300	2,300	2,300	2,300	2,300	2,300
		Izod Impact Strength	(notched) at 23°C, 4mm	80	80	80	65	65	65	60	80
		Charpy Impact Strength	(V-notched) at 23°C, 4mm	75	75	75	60	60	60	50	75
		Rockwell Hardness	R-Scale	120	120	120	120	120	120	120	120
	Thermal	Heat Deflection Temperature (Unannealed)	1.8MPa, 4.0mm	125	125	125	123	123	123	122	125
			0.45MPa, 4.0mm	137	137	137	136	136	136	135	137
		VICAT Softening Temperature	B/50	146	146	146	145	145	145	144	146

General	Extrusion			Automotive						Medical				
QC-1220UR	SC-1060P	SC-1060U	SC-1063U	LT-1100	LT-1220	TP-1020U	TP-1025U	IV-1075C	IW-1015	ML-1010R	ML-1020R	MR-1005	MR-1015	MR-1020
1.2	1.2	1.2	1.2	1.19	1.2	1.19	1.2	1.19	1.18	1.2	1.2	1.2	1.2	1.2
									17					
22	6	6	6	10.5	22	20	22	7	11	11.5	22	7.5	18	23
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	0.4-0.7	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	0.4-0.7	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
						600	600	620						
640	660	660	660	640	640				690	640	640	660	640	640
920	930	930	930	920	920				960	920	920	920	920	920
						920	920	920						
23,000	23,000	23,000	23,000	23,000	23,000				23,000	23,000	23,000	23,000	23,000	23,000
						23,000	23,000	23,000						
10	15	15	15	10	10	11	11	70	44	15	10	10	10	10
75	90	90	90	87	75	78	78	95	70	87	75	90	80	75
120	120	120	120	122	120	121	120	121	122	120	120	120	120	120
125	128	128	128	128	125	128	128	124	112	127	125	125	123	122
136	138	138	138		136	140	139	135		137	136	135	133	132
145	147	147	147	143	145	146	144	141	130	146	145	143	141	140
	2.6~3.2	2.6~3.2	2.6~3.2											
0.75~3.2	1.6~2.0	1.6~2.0	1.6~2.0		0.8, 1.5, 2.5~2.7, 3.2					0.8~3.0	0.8~3.0	0.8, 3.0		
									17					
22	6	6	6	10.5	22	20	22	7	11	11.5	22	7.5	18	23
						57	57	59						
64	66	66	66	62	64				65	64	64	66	64	64
92	93	93	93	91	92	90	90	93	98	92	92	92	92	92
2,300	2,300	2,300	2,300	2,200	2,300	2,130	2,130	2,100	2,200	2,300	2,300	2,300	2,300	2,300
65	85	85	85	69	65	52	52	62	12	80	65	85	70	65
60	80	80	80	78	60	64	64	74	12	75	60	80	65	60
120	120	120	120	122	120	122	122	121	121	120	120	120	120	120
123	126	126	126	124	123	123	122	118	108	125	123	123	121	120
136	138	138	138	137	136	139	137	133	124	137	136	135	133	132
145	147	147	147	143	145	147	144	141	130	146	145	143	141	140

Flame Retardant PC

	Properties		Condition	General													General			Low Smoke	Reinforced										
				TN-1045M	TN-1045D	TH-1100	TH-1108	SA-1100	SA-1220	HN-1064I	NH-1035	HN-1024	HN-1022	UF-1017S	UF-1002	UF-1063	UH-1062U	UH-1064	UH-1068	FS-1030	HN-3102GH	HN-3102G	HN-3104	NH-3303	NH-3204G	NH-3208GL	HF-3200H	NH-3200	HN-3204	NH-3203	NH-3402F
ASTM	Physical	Specific Gravity	-	1.22	1.21	1.20	1.20	1.20	1.20	1.18	1.20	1.20	1.19	1.20	1.19	1.19	1.19	1.19	1.18	1.18	1.26	1.26	1.26	1.42	1.34	1.35	1.37	1.34	1.35	1.33	1.51
		Melt Flow Index	220°C, 10kg											19	20	19										23.2					
			250°C, 5kg																	12								19			
			250°C, 10kg	92		17	17			18	35	19									22	33	12.5		36		11		48	33
			300°C, 1.2kg	41	27		12	9	20	9			19				12	16	13				9								
			300°C, 2.16kg																					23							
		Mold Shrinkage	Flow at 3.2mm(MD)	0.3~0.6	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	0.3~0.6	0.3~0.6	0.4~0.7	0.4~0.7	0.4-0.7	0.4-0.7	0.4-0.7	0.4~0.7	0.3-0.6	0.3-0.4	0.3-0.6	0.1-0.3	0.2 – 0.5	0.2-0.4	0.3-0.6	0.1 ~ 0.4	0.2-0.5	0.2~0.5	0.1-0.4
			X-Flow at 3.2mm(TD)	0.3~0.6	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	0.3~0.6	0.3~0.6	0.4~0.7	0.4~0.7	0.4-0.7	0.4-0.7	0.4-0.7	0.4~0.7	0.3-0.6		0.3-0.6	0.1-0.3	0.2 – 0.5	0.2-0.4	0.3-0.6	0.1 ~ 0.4	0.2-0.5	0.2~0.5	0.1-0.4
	Mechanical	Tensile Strength at Yield	5mm/min																		800	860	550	1,400	1,100	1,070	1,100	1,200	850	1,000	1,430
			50mm/min	750	730	650	650	650	650	530	600	640	600	620	650	620	500	600	600	650											
		Flexural Strength	2.8mm/min	1,100	1,050	960	900	980	990	760	900	890	900	910	950	930	750	850	800	900	1,200	1,500	1,000	1,750	1,490	1,400	1,500	1,500	1,500	1,300	1,800
		Flexural Modulus	2.8mm/min	27,000	26,500	22,000	23,000	23,000	23,000	21,000	25,000	22,000	22,000	23,500	25,000	24,000	18,000	21,000	21,000	24,000	35,000	41,000	35,000	85,000	53,500	59,300	55,000	60,000	55,000	55,000	110,000
		Izod Impact Strength	(notched) 1/4inch at 23℃	4.1	5			20	12	55	15						40	45	45	25	9	5	8								
			(notched) 1/8inch at 23℃	2.5	4	5	80	70	70	70	70	70	65	65	65	70	60	75	75	75	9	5.6	10	15	9	9	15	10	7	8	11
		Rockwell Hardness	R-scale	124	123	119	119	120	120	118	120	118	119	119	119	118	118	118	118		90	90	115	120		120		120	119		122
	Thermal	Heat Deflection Temperature	18.56kgf/cm², 6.4mm	97	95	130	130	127	120	126	113	126				95	125	123	125		138	137	140	116	114	93	140	100	138	124	110
			4.6kgf/cm², 6.4mm						130													142	145				145	105	143		117
		VICAT Softening Temperature	B/50	106	106	144	144	142	138	142	127	143	141	109	108	107	140	138	140	113		143	142			100					118
			B/120								129											146				104					
	Flame	Flammability	HB																												
			V-2	0.8, 3.0	0.8, 3.0	0.8	1.5	0.75, 1.5, 2.0, 2.5, 3.0	0.75, 1.5, 2.5, 3.0	0.75, 1.0		0.75	0.75	0.4														1.5					
			V-1							1.2																						
			V-0			2.0, 2.5, 3.0	3.0			1.5, 3.0	1.5, 2.0-2.7	1.0, 1.2, 1.5, 3.0	1.0 - 3.0	0.7 - 3.0	0.7,3.0	0.6, 3.0	1.5, 3.0	1.5, 3.0	1.5, 3.0	1.5, 2.0, 3.0	1.5-1.6	1.5-1.6	1.5, 2.5, 3.0	0.75(BK), 1.0-3.0(ALL)	2.0, 2.5, 3.0	0.75, 3.0	3	0.75.3.0	1.5, 3.0	1.0, 2.5, 3.0	2.5, 3.0
			5VB								2.0-2.7									2			2.5		2.0, 2.5, 3.0					2.5, 3.0	
			5VA										3		2.5,3.0		3			3			3	3.0(BK)				2.5			
ISO	Physical	Melt Flow Index	220°C, 10kg											19.0	20.0	19.0										23.2					
			250°C, 5kg																	12								19			
			250°C, 10kg	92		17	17			18	35	19									22	31	12.5		36		11		48	33
			300°C, 1.2kg	41	27		12	9	20	9			19				12	16	13				9					12	9		
			300°C, 2.16kg																					23							
	Mechanical	Tensile Strength at Yield	5mm/min																		80	75	60	140	100	105	110	120	88	100	184
			50mm/min	73	70	60	60	63	60	55	59	60	60	61	65	62	50	60	55	55											
		Flexural Strength	2mm/min	108	105	95	90	90	90	80	90	80	85	90	95	93	75	85	85	75	120	120	90	175	146	140	170	150	150	130	250
		Flexural Modulus	2mm/min	2,650	2,600	2,400	2,200	2,260	2,050	2,100	2,300	2,100	2,200	2,350	2,440	2,400	1,800	2,100	2,100	2,400	3,500	3,700	3,500	8,500	6,000	5,400	5,800	6,000	5,400	5,500	12,000
		Izod Impact Strength	(notched)at 23℃, 4mm	2.5	3			70		55	54	70	20	64		60	55	65	55		9	5.6	10	15	7	10	11.5	10	7	7	16
		Charpy Impact Strength	(V-notched)at 23℃, 4mm		3		30	70	25	65	55	65	18	67		60	50	60	60	50	9	5.9	10	15	8	10	14	10	7	7	17
		Rockwell Hardness	R-Scale	124	123	119	119	120	120	118	120	118	119	119	119	118	118	118	120		90	90	115	120		120	118	120	119		122
	Thermal	Heat Deflection Temperature (Unannealed)	1.8MPa, 4.0mm	89	93	123	123	125	118		107	125	123	93		90	123	121	120		138	132	137	115		91	140	97	137	123	114
			0.45MPa, 4.0mm	99					128		120			104								140	143			98	145	102	142		122
		Heat Deflection Temperature (Annealing)	1.8MPa, 4.0mm	100							116			105												94					
			0.45MPa, 4.0mm	104							122			108												98					
		VICAT Softening Temperature	B/50	106	106	144	144	142	138	142	127	143	141	109	108	107	140	138	140	113		143	142			100	147				118
			B/120	108							129			112								146				104					

Flame Retardant PC/ABS

	Properties		Condition	General						General								Reinforced		
				NE-1030	NH-1090	NH-1013U	NH-1021	NH-1037	NH-1033	NH-1041	ABF-1030G	NE-1060	NH-1034R	NH-1047	NH-1048	NE-1306	NH-1150HH	HM-1100F	LS-1150G	LS-1159S
ASTM	Physical	Specific Gravity	-	1.18	1.19	1.18	1.2	1.19	1.18	1.18	1.23	1.18	1.19	1.19	1.18	1.44	1.28	1.26	1.28	1.28
		Melt Flow Index	220°C, 10kg	53	46	33	28	19	35	27	40	53	40		36	22	29	26		
			250°C, 2.16kg																	9
			250°C, 5kg											25						
			250°C, 10kg																24	
			260°C, 2.16kg												16					
		Mold Shrinkage	Flow at 3.2mm(MD)	0.4~0.7	0.4-0.7	0.4~0.7	0.4 ~ 0.6	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	0.05-0.35	0.2-0.5	0.3 – 0.6	0.2~0.5	0.2-0.5
			X-Flow at 3.2mm(TD)	0.4~0.7	0.4-0.7	0.4~0.7	0.4 ~ 0.6	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	0.15-0.45	0.2-0.5	0.3 – 0.6	0.2~0.5	0.2-0.5
	Mechanical	Tensile Strength at Yield	5mm/min													650		800	900	900
			50mm/min	640	640	630	600	670	600	640	500	630	580	610	630		640			
		Flexural Strength	2.8mm/min	890	850	920	950	1,000	900	900	800	880	850	900	850	1,000	940	1,000	1,400	1,200
		Flexural Modulus	2.8mm/min	25,000	24,000	25,000	26,000	27,000	23,000	25,000	21,000	25,000	23,000	26,000	24,000	72,000	44,000	40,000	46,000	45,000
		Izod Impact Strength	(notched) 1/4inch at 23°C	12	18		8	19	15		8	15		30	17		6	8		8
			(notched) 1/8inch at 23°C	50	60	50	30	60	60	65	10	51	50	65	50	4	6	8	9	8
		Rockwell Hardness	R-scale		118	118	120	120	119	119	119	117	118	117	116	120	110	118	121	120
	Thermal	Heat Deflection Temperature	18.56kgf/cm^2, 6.4mm	83	87	88	89	100	92	93	92	82	88	85	79	106	86	93	127	90
			4.6kgf/cm^2, 6.4mm		95		97	108									89	95		93
	Flame	Flammability	HB		0.8															
			V-2	1													0.4		0.75~3.0	
			V-1		1.5	1.2						1			1		1			1.5
			V-0	1.5~3.0	2.0, 3.0	1.5~3.0	1.0, 3.0	1.5-3.0	1.5, 3.0	1.5-3.0	1.5, 3.0	1.2, 1.5, 2.0, 3.0	1.2	1.5, 2.0, 3.0	1.2 ~ 3.0	1.5/3.0	1.2-3.0	1.5, 2.0, 3.0		3
			5VB		2.0, 3.0	2.0~3.0		2.5, 3.0		2.0-3.0		1.5, 2.0, 3.0	2	2.0, 3.0	1.5~3.0	2				
			5VA			3							2.5							
ISO	Physical	Melt Flow Index	220°C, 10kg	53	46	33	28	19	35	27	40	53	40		36	22	29	26		
			250°C, 2.16kg																	9
			250°C, 5kg											25						
			250°C, 10kg																24	
			260°C, 2.16kg												16					
	Mechanical	Tensile Strength at Yield	5mm/min													65		80	86	90
			50mm/min	60	60	60	60	61	60	65	50	61	55	60	60		64			
		Flexural Strength	2mm/min	90			95	92	90	90	80	90	80	90	90	100	90	100	135	
			2.8mm/min		90	90														120
		Flexural Modulus	2mm/min	2,500			2,600	2,500	2,300	2,550	2,100	2,550	2,200	2,600	2,500	7,200	4,400	4,000	4,600	
			2.8mm/min		2,600	2,650														4,500
		Izod Impact Strength	(notched)at 23°C, 4mm	16	39	30	30	32	55	30	10		15			6	6	8	8.2	8
		Charpy Impact Strength	(V-notched)at 23°C, 4mm	17	46	30	20	36	30	18	10	12	15	20	45	6	6.5	7	9.9	8
		Rockwell Hardness	R-Scale	118	118	118	120	120	119	119	119	117	118	117	116	120	110	118	121	120
	Thermal	Heat Deflection Temperature (Unannealed)	1.8MPa, 4.0mm	77	82	82	85	93	86	85	89	78	82	78	75	104	80	92	125	90
			0.45MPa, 4.0mm	90	93		96	105									85	94	127	93
		Heat Deflection Temperature (Annealing)	1.8MPa, 4.0mm	85	91			100												
			0.45MPa, 4.0mm	93	98			106												
		VICAT Softening Temperature	B/50	93	98	98	100	110	107	105	105	91	100	94	90	115	95	98		
			B/120	95	100			114												

High Impact Strength PC, PC/GF

Product Selection Guide

	Properties		Condition	General						Reinforced							
				AH-1080	CF-1050	CF-1070	GM-1080	CF-1021T	CF-1031T	AH-3100	AH-3101N	AH-3200	LS-3302	CF-3200HF	CF-3300HF	GI-3103	GI-3200
ASTM	Physical	Specific Gravity	-	1.18	1.18	1.2	1.2	1.18	1.18	1.23	1.23	1.32	1.4	1.33	1.4	1.25	1.32
		Melt Flow Index	250°C, 10kg	18	18	13	28	36	13.5	24	1.1	27	12	23	22	33	33
			300°C, 1.2kg		11.5	8	16	19						11	10.5	21	
		Mold Shrinkage	Flow at 3.2mm (MD)	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	0.2~0.5	0.2~0.5	0.1~0.4	0.2~0.5	0.1~0.4	0.3~0.6	0.2~0.5
			X-Flow at 3.2mm (TD)	0.4~0.7	0.4~0.7	0.4~0.7	0.4~0.7	0.4~0.7	0.4~0.7	0.3~0.6	0.3~0.6	0.3~0.6	0.2~0.5	0.3~0.6	0.3~0.6	0.4~0.7	0.3~0.6
	Mechanical	Tensile Strength at Yield	5mm/min							800	570	1,000	1,300	1,000	1,200	560	900
			50mm/min	580	600	600	600	650	700								
		Flexural Strength	2.8mm/min	800	850	850	800	850	850	1,200	880	1,500	1,800	1,400	1,700	880	1,300
		Flexural Modulus	2.8mm/min	21,000	20,000	20,000	20,000	21,000	21,000	34,000	30,000	55,000	75,000	56,000	66,000	32,000	50,000
		Izod Impact Strength	(notched) 1/4inch at 23°C		55	55	60	10	15	17	11	16	12	20	15	16	
			(notched) 1/8inch at 23°C	75	70	70	72	70	80	20	28	17	17	19	18	23	15
		Rockwell Hardness	R-scale	118	120		116	120	120				120	116	115	115	
	Thermal	Heat Deflection Temperature	18.56kgf/cm^2, 6.4mm	129	129		125	120	125	136	137	138	140	141	140	131	132
			4.6kgf/cm^2, 6.4mm		137		135	133					144	145	143	136	
	Flame	Flammability	HB	0.8, 3.0						0.8, 3.0		0.8, 3.0				0.8, 3.2	0.8, 3.0
			V-2		0.8, 2.5, 3.0	0.8, 2.5, 3.0	0.8, 3.0						0.8	0.8	0.8		
			V-1										3.2	3.2	3.2		
ISO	Physical	Melt Flow Index	250°C, 10kg	18	18	13	28	36	13.5	24	11	27	12	23	22	33	33
			300°C, 1.2kg		11.5	8	16	19						11	10.5	21	
	Mechanical	Tensile Strength at Yield	5mm/min							80	57	100	120	100	125	53	98
			50mm/min	51	55	58	60	60	55								
		Flexural Strength	2mm/min	80	80	80	80	92	80	120	88	150	175	170	180	85	140
		Flexural Modulus	2mm/min	2,200	2,100	2,100	2,000	2,300	2,100	3,500		5,500	8,300	6,000	7,300	3,160	4,600
		Izod Impact Strength	(notched) at 23°C, 4mm	59	60	65	53	60	60	18	23	17	12	19	17	18	15
		Charpy Impact Strength	(V-notched) at 23°C, 4mm	70	65	70	58	60	60	15		18	12	25	18	19	
		Rockwell Hardness	R-Scale	118	120		116	120	120				120	116	115	115	
	Thermal	Heat Deflection Temperature (Unannealed)	1.8MPa, 4.0mm	125	125		115	130	123	133	132	135	140	139	138	130	128
			0.45MPa, 4.0mm		136		130	133					144	144	143	134	
		VICAT Softening Temperature	B/50	143	141	140	139	140	145				147	148	143	126	

Metal Adhesion, CCM, LDS Materials

Product Selection Guide

	Properties		Condition	Metal Adhesion	CCM	LDS								
				JS-5207LD	CL-9200	LP-1022	LP-1025	LP-1025I	LP-3105	LP-3305	LP-3303	LP-1010	LP-1011	LP-4300
ASTM	Physical	Specific Gravity	-	1.37	1.52	1.25	1.28	1.25	1.33	1.43	1.47	1.19	1.21	1.46
		Melt Flow Index	250°C, 10kg					15			26	28	36	
			280°C, 2.16kg	20										
			300°C, 1.2kg			22	24		20	14	17	15	17	
			335°C, 2.16kg		80									
		Mold Shrinkage	Flow at 3.2mm(MD)	0.5-0.8	0.05-0.35	0.4-0.7	0.4-0.7	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
			X-Flow at 3.2mm(TD)	0.6-0.9	0.15-0.45	0.4-0.7	0.4-0.7	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
	Mechanical	Tensile Strength at Yield	5mm/min	1,000	1,150				750	900	960			1,200
			50mm/min			560	580	560				530	530	
		Flexural Strength	2.8mm/min	1,700	1,100	820	840	780	1,100	1,300	1,400	800	800	1,400
		Flexural Modulus	2.8mm/min	57,000	66,000	21,000	22,000	21,000	35,000	54,000	69,000	23,000	25,000	80,000
		Izod Impact Strength	(notched) 1/4inch at 23°C	11		40	15	60	9	8	10	47	25	
			(notched) 1/8inch at 23°C	11		70	22	70	10	10	11	60	50	3
			(Un-notched) 1/8inch at 23°C		70									
		Rockwell Hardness	R-scale	112			118		116		115	113	116	120
			M-Scale		45									
	Thermal	Heat Deflection Temperature	18.56kgf/cm^2, 6.4mm	208	235				119	121	125	110	115	281
			4.6kgf/cm^2, 6.4mm	208								125	124	
	Flame	Flammability	HB				0.8, 3.0			0.8, 3.0		0.8, 3.0	0.8,3.0	
			V-0			1.0, 3.0								
ISO	Physical	Melt Flow Index	250°C, 10kg					15			26	28	36	
			300°C, 1.2kg			22	24		20	14	17	15	17	
			335°C, 2.16kg		80									
	Mechanical	Tensile Strength at Yield	5mm/min	98	115				78	90	100			120
			50mm/min			55	55	55				55	55	
		Flexural Strength	2mm/min				82	75	110	130	120	75	75	140
			2.8mm/min	166	110	75								
		Flexural Modulus	2mm/min				2,200	2,100	3,500	5,400	6,500	2,300	2,500	8,000
			2.8mm/min	5,590	6,500	2,100								
		Izod Impact Strength	(notched) at 23°C, 4mm	11		40	20	60	10	10	10	60	50	3
		Charpy Impact Strength	(V-notched) at 23°C, 4mm	11		40	15	60	8		11	63	55	4
		Rockwell Hardness	R-Scale	111			118		116		115	113	116	120
			M-Scale		45									
	Thermal	Heat Deflection Temperature (Unannealed)	1.8MPa, 4.0mm	208	235				117	119	124	108	115	281
			0.45MPa, 4.0mm	208							133	124	124	
		VICAT Softening Temperature	B/50			125	133	143			125	127	126	

Eco-Friendly Materials

		Properties	Condition	GC-1025	GC-1029	GV-1029	GC-3107	GW-1030	GW-1083	GC-1045	GC-1017	GV-1016
ASTM	Physical	Specific Gravity	-	1.20	1.20	1.20	1.28	1.10	1.15	1.19	1.17	1.18
		Melt Flow Index	220°C, 10kg							55	46	23
			250°C, 2.16kg					3.3	5.5			
			250°C, 5kg									
			250°C, 10kg	20	25	19						
			260°C, 2.16kg									
			260°C, 5kg									
			280°C, 5kg									
			300°C, 1.2kg				10					
		Mold Shrinkage	Flow at 3.2mm(MD)	0.4-0.7	0.4~0.7	0.4~0.7	0.3-0.6	0.4-0.7	0.4-0.7	0.4~0.7	0.3~0.6	0.4~0.7
			X-Flow at 3.2mm(TD)	0.4-0.7	0.4-0.7	0.4~0.7	0.3-0.6	0.4-0.7	0.4-0.7	0.4~0.7	0.3~0.6	0.4~0.7
	Mechanical	Tensile Strength at Yield	5mm/min				600					
			50mm/min	590	590	630		530	600	600	580	680
		Flexural Strength	2.8mm/min	800	800	870	950			900	890	900
			10mm/min					800	800			
		Flexural Modulus	2.8mm/min	21,000	21,000	20,000	33,000			24,500	25,500	24,000
			10mm/min					24,300	22,500			
		Izod Impact Strength	(notched) 1/4inch at 23°C				7	19	52	15		
			(notched) 1/8inch at 23°C	60	65	65	8	37	60	60	45	60
		Rockwell Hardness	R-scale	120			121	113	116	116	115	
	Thermal	Heat Deflection Temperature	18.56kgf/cm^2, 6.4mm	125	125	126	136	105	115	80	83	
			4.6kgf/cm^2, 6.4mm								91	
	Flame	Flammability	HB									
			V-2	0.75, 1.0	0.75, 1.0	0.75						
			V-1	1.20	1.20						1.50	
			V-0	1.5, 3.0	1.5, 3.0	10,12,15,30	1.5, 3.0			1.5, 3.0	2.0, 3.0	1.5, 3.0
			5VB				2.50				2.0, 3.0	1.5, 3.0
ISO	Physical	Melt Flow Index	220°C, 10kg							55	46	23
			250°C, 2.16kg					3.3	5.5			
			250°C, 5kg									
			250°C, 10kg	20	25	19						
			260°C, 2.16kg									
			260°C, 5kg									
			280°C, 5kg									
			300°C, 1.2kg				10					
	Mechanical	Tensile Strength at Yield	5mm/min				60					
			50mm/min	55	55	56		50	60	60	59	55
		Flexural Strength	2mm/min	80	80	81	100	82	85	90	86	87
		Flexural Modulus	2mm/min	2,100	2,100	2,000	3,700	2,400	2,300	2,450	2,700	2,400
		Izod Impact Strength	(notched)at 23°C, 4mm	50	50	50	6	40	48	30	17	35
		Charpy Impact Strength	(V-notched)at 23°C, 4mm	50	50		7	50	48	15	15	45
		Rockwell Hardness	R-Scale	120			121	113	116	116	115	
	Thermal	Heat Deflection Temperature (Unannealed)	1.8MPa, 4.0mm	121	121	122	132	103	110	78	77	
			0.45MPa, 4.0mm				139				86	
		VICAT Softening Temperature	B/50	141	141	142		119	125	95	93	102
			B/120								94	

													OBP(Ocean Bound Plastics)				
				GC-1150HE	GC-1157DE	GV-1097	GC-1048	GC-1055	GC-1151	GW-1053	GW-1055	GW-3203	GV-1005OP	GV-1155OP	GB-9302	GB-9502	GB-9702
ASTM	Physical	Specific Gravity	-	1.30	1.32	1.20	1.18	1.18	1.28	1.18	1.18	1.33	1.21	1.3	1.36	1.56	1.85
		Melt Flow Index	220°C, 10kg	31	33	56	38	41									
			250°C, 2.16kg						18								
			250°C, 5kg												35	10	13
			250°C, 10kg							19	19	23					
			260°C, 2.16kg										18	9			
			260°C, 5kg											49			
			280°C, 5kg														13
			300°C, 1.2kg														
		Mold Shrinkage	Flow at 3.2mm(MD)	0.2-0.5	0.2-0.5	0.4~0.7	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	0.1~0.4	0.1~0.4
			X-Flow at 3.2mm(TD)	0.2-0.5	0.2-0.5	0.4-0.7	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	0.2~0.5	0.2~0.5
	Mechanical	Tensile Strength at Yield	5mm/min	600	600				850					600			
			50mm/min			650	630	650		490	500		650				
		Flexural Strength	2.8mm/min	900	950	900	900	900	1,200	830	860	1,400	900	900	1,800	2,800	2,700
			10mm/min														
		Flexural Modulus	2.8mm/min	39,000	40,000	22,000	25,000	26,000	48,000	22,000	22,000	56,000	26,000	39,000	75,000	140,000	190,000
			10mm/min														
		Izod Impact Strength	(notched) 1/4inch at 23°C	5	6		17	15	6		60	18		5	8	15	11
			(notched) 1/8inch at 23°C	6	6	10	50	50	6	75	75	19	15	5			
		Rockwell Hardness	R-scale				116	117		118		116			110	110	
	Thermal	Heat Deflection Temperature	18.56kgf/cm^2, 6.4mm	88	86	88	79	81	89		130	139		87	205	210	204
			4.6kgf/cm^2, 6.4mm									143					
	Flame	Flammability	HB							0.8, 3.0					0.8, 3.0	0.8, 3.0	0.8, 3.0
			V-2														
			V-1						1.50								
			V-0	1.2, 3.0	1.0, 1.2, 3.0	1.5, 3.0	1.2/1.5/3.0	1.2, 1.5, 3.0	3.0				1.0,3.0	1.2,3.0			
			5VB				1.5/3.0	1.5, 3.0									
ISO	Physical	Melt Flow Index	220°C, 10kg	31	33	56	38	41									
			250°C, 2.16kg						18								
			250°C, 5kg												35	10	
			250°C, 10kg							19	19	23					
			260°C, 2.16kg										18	9			
			260°C, 5kg											49			
			280°C, 5kg														13
			300°C, 1.2kg														
	Mechanical	Tensile Strength at Yield	5mm/min	60	65				85					60	190	274	264
			50mm/min			65	60	64		50	51		60				
		Flexural Strength	2mm/min	90	90	90	90	94	120	80	87	170	80	90	190	274	264
		Flexural Modulus	2mm/min	3,900	3,800	2,200	2,500	2,600	4,800	2,100	2,200	6,000	2,600	3,900	7,400	13,720	18,633
		Izod Impact Strength	(notched)at 23°C, 4mm	5	5		40	40	5		65	19		5	8	15	11
		Charpy Impact Strength	(V-notched)at 23°C, 4mm	5	5	10	50	26	5	70	70	25		5			
		Rockwell Hardness	R-Scale				116	117		118		116					
	Thermal	Heat Deflection Temperature (Unannealed)	1.8MPa, 4.0mm		84		76	78	86		128	137		85	205	210	204
			0.45MPa, 4.0mm									142					
		VICAT Softening Temperature	B/50	99	95	99	90	91	95	142	142		97	95			
			B/120														

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

Change Today, Create Tomorrow

MISSION

We enrich people's lives by
Providing superior products
And services that
Our customers love
Ans trust.

VISION

Lifetime Value Creator

Business Portfolio

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

Field of Business

Basic Chemicals	Basic/Intermediate Petrochemicals	Ethylene, Propylene, BD, SM, OX, C5
	Polymer	PE, PP, PET
	Monomer	EO/EG/GE, EOA, PIA/PTA/MMA
Advanced Materials	High Performance Plastic Materials	**starex** Styrene & general product ABS, ABS Alloy, ASA, PP
		INFINO Enginnering plastics PC, PC Alloy & High Performance EP
		Perfomance materials PP Compound, TPE, LFT
	Construction Materials	Acrylic solid surface, Engineered stone, Porcelain surface

Capacity

(Unit : KTA)

BASIC CHEMICALS

EL	4,513
PL	1,697
BD	540
BZ	766
TL	339
MX	139

MONOMER

EG	1,930
SM	577
PX	750
OX	210
Me-X	360
PIA	520

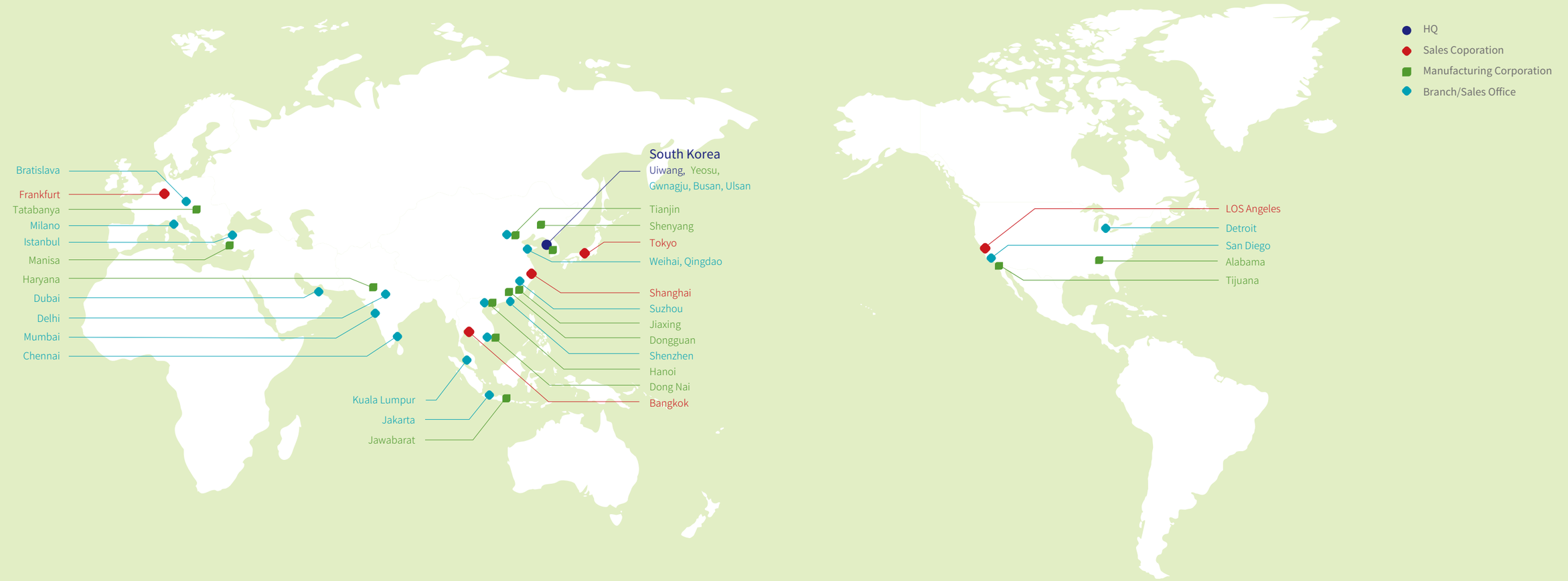
POLYMER

HDPE	1,602
LLDPE	490
LDPE/EVA	360
PP	1,823
PET	520
ABS	760
PC	460

SPECIALTY

EPDM	96
MMA	237
PMMA	110
S-SBR	100
EOA	430
Acrylic solid surface	86k sheets
Engineered stone	33k sheets

Global **Network** [Advanced Materials]



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