SAMSUNG CHEIL INDUSTRIES

INFINO PC/ABS

INFINO®

"Create infinite
possibilities and **values**."

INFINO connotes a firm determination of Samsung Cheil Industries 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. Also it means future-oriented and differentiated products and their value by making digress from typical patterns of generic chemical materials to new-concept ones.

INTRODUCTION OF *INFINO* PC/ABS

INFINO PC/ABS combines the advantages of ABS (Acrylonitirile-Butadiene-Styrene) and PC (Polycarbonate). As for ABS-related advantages, the product maintains a high level of processibility, low temperature impact resistance and the application of spraying. At the same time, PC-related advantages excellent mechanical property, heat resistance (heat deflection temperature), electrical and dimensional stability turn PC/ABS into a top-notch alloy resin in the category of engineering plastics.

INFINO PC/ABS RESIN PROVIDES

- **Excellent processibility**: Bending due to residual stress during the molding process is minimized while progressive cracks do not occur.
- **Good impact strength**: Mechanical properties such as tensile strength are at the same level as that of other engineering plastics.
- **Heat resistance**: Changes in temperature have a minimal impact on the PC/ABS's mechanical properties, which allows for the application in a wide range of temperatures.
- **Weatherability**: Lighting is less likely to weaken properties or cause color fastness.
- **Eco-friendly**: No use of brominated flame retardants that could generate toxic materials such as dioxin or difuran.
- **Diverse product lineups**: High-performance flame retardants are inserted; different flame retardant products such as V-2, V-1, V-0 and 5V in terms of thickness.

TYPICAL APPLICATION OF *INFINO* PC/ABS

Thanks to an excellent array of properties that include heat resistance, weatherability and flame retardant, PC/ABS can be used for a wide range of applications such as automotives, electric and electronics parts as well as housing.

INFINO PC / ABS PRODUCT LINE -UP

GENERAL PC / ABS

GENERAL PC / ABS

General Purpose

High Impact/Flow
- General Purpose
  - HI-1001B
- Chemical Resistant
  - HI-100BN
- High Flow
  - HI-1001BS (MI 50)
  - HR-1008B (VST 117℃, MI 50, Izod 60)
  - HR-1044 (VST 120℃, Chemical Resistant)
  - HR-1054 (VST 130℃, Chemical Resistant)

High Performance/Heat
- General Purpose
  - HP-1000H (Balanced Impact / Flow Izod 60)
  - HP-1000X (VST126℃, Izod 80, MI 6)
  - HP-1000XA (Izod 70, MI 27)
  - HP-1000P
- High Flow
  - WP-1069 (VST 120℃, Sprial flow~up)
  - WP-1089 (VST 130℃, Sprial flow~up)
- High Weld Strength
  - ST-1009
  - HP-1011 (Gas Improved)
- Chemical Resistant
  - WP-1059

Eco-Friendly
- GW-1013 (PCM 25%, VST 120℃)
- GW-1014 (PCM 20%, VST 130℃)

Metal Plating
- Genaral
  - HI-1001BP (Less pin-hole, High Impact)
- Advanced adhesion
  - WP-1041 (VST110℃)
  - WP-1041G (Enhanced Eching effciency)

Functional
- Low Gloss
  - WP-1098 (UV resistance)
- Eco-Friendly
  - GW-1031 (PCM 50%)
  - GW-1041 (PCM 80%)
- Anti-Static
  - HA-1011 (10^11 ohm/sq)
- Blow Molding
  - BM-1007

INFINO PC / ABS PRODUCT LINE -UP

FR PC / ABS

FR PC / ABS

Non-Halogen

General

- General
  - NH-1000T (2.0mm V-0)
  - NH-1001T (1.5mm V-1)
  - NH-1017 (2.0mm V-0/5VB, High Flow)
- Superior Flame Retardant
  - NE-1020 (1.5mm V-0, 2.0mm 5VB)

Advanced Physical Property

- High Impact
  - NH-1015 (1.5mm V-0)
  - NH-1015V (High Flow, MI 30)
  - NH-1015S (High Flow, MI 40) (Good aesthetics)
  - NH-1000AH (1.5mm V-0, High Impact)
- Superior Flame Retardant General
  - NH-1027HF (1.2mm V-0, 1.5mm 5VB) (High flowability & Low gas)
  - NH-1021 (1.0mm V-1) (High flow, Thin-wall design)
- High Heat
  - NH-1037 (1.5mm V-0, HDT 100℃)
  - NH-1031 (1.5mm V-0, HDT 110℃)

High Gloss / High Flow

- General
  - NH-1017D (2.0mm V-0)
  - NH-1017T (2.0mm V-0, High Flow)
  - NH-1019 (1.5mm V-0) (Easy releasing)
- High Flow
  - NH-1029 (1.2mm V-1, MI 80)
- Wide process window
  - NE-1010 (1.5mm V-0) (Good aesthetics and Lower process temp.)
  - NE-1030 (1.5mm V-0, High Flowability)
  - NE-1059 (2.0mm V-1, High Flowability)

High Modulus

- Talc 5%
  - NH-1051 (1.0mm V-1)
- Talc 8%
  - NH-1101 (1.2mm V-0, Good surface)
- Talc 15%
  - NH-1150
  - NH-1150H (1.2mm V-0, High Impact)

Functional

- Scratch Resistance
  - NF-3017 (1.0mm V-0, Scratch level "F")
  - NF-3017H (Impact enhanced)
- Metal Plating
  - QP-1010 (2.5mm V-1)
- Eco-Friendly
  - GC-1015 (PCM 30%, 1.5mm V-0)
  - GC-1017 (PCM 30%, 2.0mm V-0)
  - GC-1017H (PCM 35%, 2.0mm V-0)
  - GC-1050 (PCM 50%, 0.8mm V-0, Talc 5%)
  - GC-1150 (PCM 30%, 1.5mm V-0, Talc 15%)
- Luminous
  - LX-1031 (1.5mm V-0)
- Extrusion
  - EF-1031 (1.5mm V-0)
  - EF-1032 (1.5mm V-0)

INFINO PC / ABS PRODUCT LINE -UP

PC / ABS / GF

PC / ABS / GF

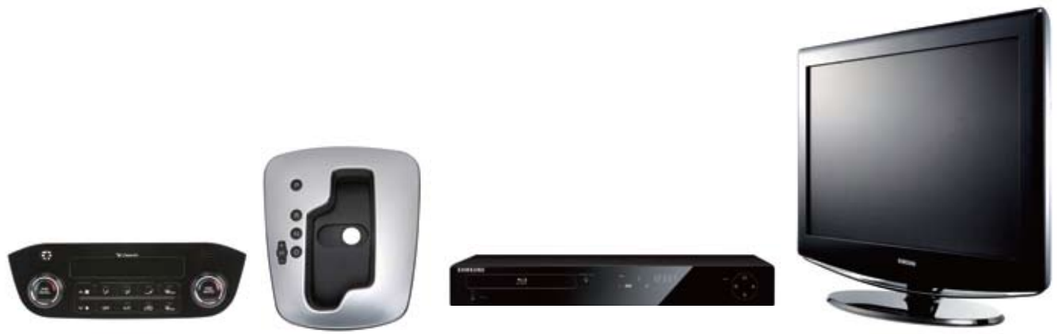
General Purpose

High Impact

- GF 12%
  - WP-1120

Flame Retardant

- GF 5%
  - HM-1051G (1.5mm V-0)
- GF 10%
  - HM- 1100
- GF 15%
  - LS-1150G (Dimensional Stability)
  - HM-1150 (1.5mm V-1, Good Surface)
- GF 20%
  - HM-1202 (1.5mm V-0, HDT 120℃)



KEY FEATURES & APPLICATION

PC / ABS

Type		Grades	Characteristics	Typical Application
General Purpose	General	HA-1011	Antistatic	LCD Panel Tray
		HI-1001B	Weld strength, High Flow	Mobile Phone
		HI-1001BN	Chemical Resistance, High Impact	Mobile Phone, Wheel cap, Cooker, Iron, Refrigerator, Door Handle, Panel
		HI-1001BS	High Impact	Mobile Device Housing
		HP-1000B	High Flow	Mobile Phone, Wheel cap, Cooker, Iron, Refrigerator, Door Handle, Panel
		HP-1000H	High Heat Resistance	
		HP-1000P	High Flow	
		HP-1000X	General Purpose	Automotive IP Core
		HP-1000XA	High Impact	Automotive IP Core Center Fascia
		HP-1011	High Flow	Mobile Phone Housing
		HR-1008B	High Flow	
		HR-1034L	General Purpose	In-line Wheel
		WP-1059	Chemical Resistance, Impact Resistance (Low Temp.)	Automotive, Wheel Cover
		WP-1098	Low Gloss, Heat Resistance,UV Resistance	Automotive Interior (IP Core)
	Metal Plating	HI-1001BG	Metal Plating	Automotive Wheel Cap, Air Conditioner Panel
		HI-1001BP	High Impact, High Heat Resistance	Resin for Metal Plating
		WP-1041	High Flow, Adhesion	Automotive Radiator Gril, Door Handle
		WP-1041G	High Flow, Adhesion, Etching	Automotive
	Eco friendly	GW-1013	Eco-friendly	Automotive Device Housing
		GW-1041	High Impact, High PCM Content	Mobile Device Housing
	Blow Molding	BM-1007	Low Gloss	Automotive Side Step

KEY FEATURES & APPLICATION

PC / ABS

Type		Grades	Characteristics	Typical Application
Flame Rerardant	Non Halogen	EF-1031	Extrusion	NH Flame Retardant, Extrusion
		EF-1032	Extrusion	
		NE-1010	Good Appearence	TV Cover
		NE-1030	1.5mm V0, High Flow	
		NE-1050	2.0mm V1, High Flow	TV Front Cover / Back Cover
		NH-1000AH	1.5mm V0, High Impact	Printer Part
		NH-1001T	1.5mm V1	CD ROM
		NH-1015	1.5mm V0	Laptop Housing
		NH-1015S	High Impact, High Flow, High Weatherability	Laptop, OA Device Housing
		NH-1015T	1.5mm V0	Telephone
		NH-1015V	High Impact, High Flow	Laptop Housing
		NH-1017D	High Gloss, Good Appearence	TV Front / Back Housing
		NH-1017T	High Gloss, High Flow	TV Front Cover
		NH-1019	1.5mm V0, Easy Releasing	Game Housing
		NH-1021	Flame Retardant	Laptop
		NH-1025R	Flame Retardant	PDP Cover Mask
		NH-1027	High Heat Resistance, High Impact, High Flow	Laptop Thin-walled Housing
		NH-1027HF	High Flow	Copy Machine
		NH-1029	1.2mm V1, High Flow	TV Front / Rear cover
		NH-1037	High Heat Resistance, High Impact, High Flow	Electric & Electronic Parts Housing
		NH-1101	High Flame Retardant	Laptop Back Cover
		NH-1150H	High Modulus, High Flame Retardant	Laptop Thin-walled Housing
		QP-1010	Metal Plating	LED TV Stand
	Eco friendly	GC-1015	Eco friendly (PCM Base)	Desktop PC Housing
		GC-1017	Eco friendly (PCM Base)	TV Back Cover
		GC-1017H	Eco friendly (PCM Base)	Desktop PC Housing
		GC-1050	High Modulus, Flame Retardant PCM Base	Laptop Housing
		GC-1150	High Modulus, Flame Retardant PCM Base	
	NH Scratch Resistance	NF-3017	Scratch Resistance, High Impact	Laptop B Part
PC / ABS / GF				
General Purpose		WP-1120	High Modulus, High Flow, High Impact	IP Core, Console Box
		WP-1150	High Modulus, High Flow, High Impact	
Flame Rerardant	Non Halogen	HM-1051G	GF 5%	DVD-ROM Tray
		HM-1100	Flame Retardant	TV Cover Middle Frame
		LS-1150G	GF 15%	LCD TV BLU

GENERAL PC / ABS

General PC/ABS

Properties	Test Method	Condition	Unit	General						
				HA-1011	HI-1001B	HI-1001BS	HP-1000H	HP-1000P	HP-1000X	HP-1000XA
Physical Properties										
Specific Gravity	ASTM D792	Natural color	-	1.13	1.13	1.10	1.14	1.14	1.15	1.13
Melt Flow Index	ASTM D1238	220°C, 10kg	g/10min							
	ASTM D1238	250°C, 10kg	g/10min	55	20	50	14	26		27
Mold Shrinkage	ASTM D955		%	0.2-0.4			0.5-0.7	0.5-0.7	0.5-0.7	0.5-0.7
Mechanical Properties										
Tensile Strength	ASTM D638	50mm/min	kgf/cm²		620	540	550	580		550
Elongation at Break	ASTM D638	50mm/min	%							
Flexural Strength	ASTM D790	2.8mm/min	kgf/cm²	750	850	700	750	840	790	
	ISO 178	2mm/min	MPa						90	75
Flexural Modulus	ASTM D790	2.8mm/min	kgf/cm²	19,000	25,000	22,000	22,000	22,000	22,000	
	ISO 178	2mm/min	MPa						2,300	2,050
Izod Impact Strength	ASTM D 256	(notched) 1/8	kgf-cm/cm		45	56	63	60		
Charpy Impact Strength	ISO 179 1eA	(notched)	KJ/m²						57	55
Rockwell Hardness	ASTM D785	R-Scale	-	106			115	115	115	113
Thermal Properties										
Heat Deflection Temperature	ASTM D648	18.56kgf/cm²	°C	102			120	115	113	110
VICAT Softening Temperature	ISO R 306	5kg, 50°C/hr	°C	114	111	106	132	133	127	
Flame Characteristics										
Flammability	UL94	HB	mm				1.5, 3.0	1.5, 3.0	1.5, 3.0	1.5, 3.0
Flammability	UL94	V1	mm							
Flammability	UL94	V0	mm							
Flammability	UL94	5VB	mm							

GENERAL PC / ABS

General PC/ABS

Properties	Test Method	Condition	Unit	General						Metal Replacing
				HP-1011	HR-1008B	ST-1009	WP-1059	WP-1069	WP-1098	HI-1001BP
Physical Properties										
Specific Gravity	ASTM D792	Natural color	-	1.12	1.13	1.15	1.12	1.13	1.12	1.10
Melt Flow Index	ASTM D1238	220°C, 10kg	g/10min							
	ASTM D1238	250°C, 10kg	g/10min	34	60	30	45	49	30	36
Mold Shrinkage	ASTM D955		%	0.5-0.7	0.5-0.7	0.5-0.7				0.5-0.7
Mechanical Properties										
Tensile Strength	ASTM D638	50mm/min	kgf/cm²	500	630	500	540	570	520	540
Elongation at Break	ASTM D638	50mm/min	%							100
Flexural Strength	ASTM D790	2.8mm/min	kgf/cm²	700	880	800	750	800	700	760
	ISO 178	2mm/min	MPa	68			75	83	75	80
Flexural Modulus	ASTM D790	2.8mm/min	kgf/cm²	21,000	26,000	23,000	22,500	22,500	20,000	20,000
	ISO 178	2mm/min	MPa	1.908			2,250	2,500	2,000	2,000
Izod Impact Strength	ASTM D 256	(notched) 1/8	kgf-cm/cm	55	50	65	48	60	62	57
Charpy Impact Strength	ISO 179 1eA	(notched)	KJ/m²	56			45	50	52	45
Rockwell Hardness	ASTM D785	R-Scale	-	106	114	115	112			108
Thermal Properties										
Heat Deflection Temperature	ASTM D648	18.56kgf/cm²	°C	109	105	107	105	110	105	102
VICAT Softening Temperature	ISO R 306	5kg, 50°C/hr	°C	125	117	122				112
Flame Characteristics										
Flammability	UL94	HB	mm	0.8–3	1.5, 3.0, 6.0	0.8				1.5, 3.0, 6.0
Flammability	UL94	V1	mm							
Flammability	UL94	V0	mm							
Flammability	UL94	5VB	mm							

GENERAL PC / ABS, FLAME RETARDANT PC / ABS

				General PC/ABS				Flame Retardant PC/ABS		
				Metal Replacing		Eco-Friendly		General		High Impact
Properties	Test Method	Condition	Unit	WP-1041	WP-1041G	GW-1013	GW-1041	NH-1000T	NH-1001T	NH-1000AH
Physical Properties										
Specific Gravity	ASTM D792	Natural color	-	1.09	1.09	1.18	1.15	1.18	1.16	1.22
Melt Flow Index	ASTM D1238	220°C, 10kg	g/10min					39	24	26
	ASTM D1238	250°C, 10kg	g/10min	40	32		19			
Mold Shrinkage	ASTM D955		%			0.56	0.5-0.7	0.5-0.7		0.5-0.7
Mechanical Properties										
Tensile Strength	ASTM D638	50mm/min	kgf/cm²	540	500	555	530	550	580	650
Elongation at Break	ASTM D638	50mm/min	%		100					
Flexural Strength	ASTM D790	2.8mm/min	kgf/cm²	720	680	760	760	780	800	950
	ISO 178	2mm/min	MPa	72		75	70			
Flexural Modulus	ASTM D790	2.8mm/min	kgf/cm²	21,000	20,100	20,800	20,000	24,500	22,500	30,000
	ISO 178	2mm/min	MPa	2,000		2,020	2,160			
Izod Impact Strength	ASTM D 256	(notched) 1/8	kgf-cm/cm	56	55	63	70	40	65	35
Charpy Impact Strength	ISO 179 1eA	(notched)	KJ/m²	46		53	61			
Rockwell Hardness	ASTM D785	R-Scale	-	105	105	106	110	112	115	
Thermal Properties										
Heat Deflection Temperature	ASTM D648	18.56kgf/cm²	°C	102	100	101	121	80		84
VICAT Softening Temperature	ISO R 306	5kg, 50°C/hr	°C	110	110	120	138	89	93	98
Flame Characteristics										
Flammability	UL94	HB	mm	1.5, 3.0						
Flammability	UL94	V1	mm					1.5, 2.0		
Flammability	UL94	V0	mm					2.1, 2.5, 3.0	2	1.5, 2.5, 3.0
Flammability	UL94	5VB	mm					2.0, 2.1, 2.5		2.5

FLAME RETARDANT PC / ABS

				Flame Retardant PC/ABS						
				High Impact				Superior FR		High Heat
Properties	Test Method	Condition	Unit	NH-1015	NH-1015S	NH-1015T	NH-1015V	NH-1021	NH-1027HF	NH-1031
Physical Properties										
Specific Gravity	ASTM D792	Natural color	-	1.17	1.18	1.19	1.18	1.20	1.19	1.20
Melt Flow Index	ASTM D1238	220°C, 10kg	g/10min	23	36	28	30	28	55	
	ASTM D1238	250°C, 10kg	g/10min							35
Mold Shrinkage	ASTM D955		%	0.5-0.7			0.5-0.7		0.5-0.7	0.5-0.7
Mechanical Properties										
Tensile Strength	ASTM D638	50mm/min	kgf/cm²	620	600	560	600	670	600	620
Elongation at Break	ASTM D638	50mm/min	%							
Flexural Strength	ASTM D790	2.8mm/min	kgf/cm²	840	870	800	870	950	900	900
	ISO 178	2mm/min	MPa	80			89	94		
Flexural Modulus	ASTM D790	2.8mm/min	kgf/cm²	24,500	24,000	24,440	24,000	26,000	25,000	25,000
	ISO 178	2mm/min	MPa	2,400			2,550	2,500		
Izod Impact Strength	ASTM D 256	(notched) 1/8	kgf-cm/cm	58	52	55	55	30	60	70
Charpy Impact Strength	ISO 179 1eA	(notched)	KJ/m²	18						
Rockwell Hardness	ASTM D785	R-Scale	-	115				120	118	120
Thermal Properties										
Heat Deflection Temperature	ASTM D648	18.56kgf/cm²	°C	99	92		86			113
VICAT Softening Temperature	ISO R 306	5kg, 50°C/hr	°C	100	100	98	102	100	98	127
Flame Characteristics										
Flammability	UL94	HB	mm							
Flammability	UL94	V1	mm					1.0		
Flammability	UL94	V0	mm	1.5	1.5	1.5	1.5	3.0	1.2	1.5,2.0,3.0
Flammability	UL94	5VB	mm				2.0		1.5	

FLAME RETARDANT PC / ABS

				Flame Retardant PC/ABS						
				High Heat	High Flow				High Gloss	
Properties	Test Method	Condition	Unit	NH-1037	NE-1010	NE-1030	NE-1059	NH-1029	NH-1017	NH-1017D
Physical Properties										
Specific Gravity	ASTM D792	Natural color	-	1.19	1.19	1.17	1.17	1.19	1.17	1.19
Melt Flow Index	ASTM D1238	220°C, 10kg	g/10min	19	48	43	30	110	46	46
	ASTM D1238	250°C, 10kg	g/10min							
Mold Shrinkage	ASTM D955		%	0.5-0.7						0.5-0.7
Mechanical Properties										
Tensile Strength	ASTM D638	50mm/min	kgf/cm²	670	650	680	640	600	580	600
Elongation at Break	ASTM D638	50mm/min	%							
Flexural Strength	ASTM D790	2.8mm/min	kgf/cm²	1000	960	940	900	900	850	850
	ISO 178	2mm/min	MPa			93	89	88	83	93
Flexural Modulus	ASTM D790	2.8mm/min	kgf/cm²	27,000	28,000	26,500	26,500	24,000	24,000	23,500
	ISO 178	2mm/min	MPa			2,500	2,600	2,400	2,350	2,600
Izod Impact Strength	ASTM D 256	(notched) 1/8	kgf-cm/cm	60	20	45	40	40	48	60
Charpy Impact Strength	ISO 179 1eA	(notched)	KJ/m²			20				15
Rockwell Hardness	ASTM D785	R-Scale	-	120		116		115	113	118
Thermal Properties										
Heat Deflection Temperature	ASTM D648	18.56kgf/cm²	°C	100						
VICAT Softening Temperature	ISO R 306	5kg, 50°C/hr	°C	112	97	93		90	92	98
Flame Characteristics										
Flammability	UL94	HB	mm							
Flammability	UL94	V1	mm			1.5		1.2		
Flammability	UL94	V0	mm	1.5	1.5	2.0,3.0	2.0	1.5, 3.0	2.0, 3.0	2.0, 3.0
Flammability	UL94	5VB	mm						2.0, 30	2.0, 3.0

INFINO PC / ABS PRODUCT SELECTION GUIDE

FLAME RETARDANT PC / ABS

				Flame Retardant PC/ABS								
				High Gloss		High Modulus			Scratch Resistant			
Properties	Test Method	Condition	Unit	NH-1017T	NH-1019	NH-1101	NH-1150	NH-1150H	NF-3017	NF-3017H		
Physical Properties												
Specific Gravity	ASTM D792	Natural color	-	1.18	1.19	1.23	1.29	1.29	1.19	1.20		
Melt Flow Index	ASTM D1238	220°C, 10kg	g/10min	60	55	26	34	28				
	ASTM D1238	250°C, 10kg	g/10min									
Mold Shrinkage	ASTM D955		%				0.2-0.4					
Mechanical Properties												
Tensile Strength	ASTM D638	50mm/min	kgf/cm²		620	630	680	640	680	720		
Elongation at Break	ASTM D638	50mm/min	%									
Flexural Strength	ASTM D790	2.8mm/min	kgf/cm²	870	900	930	1100	930	1000	1100		
	ISO 178	2mm/min	MPa	98	88		108			110		
Flexural Modulus	ASTM D790	2.8mm/min	kgf/cm²	24,000	24,500	33,000	42,000	39,000	27,000	27,500		
	ISO 178	2mm/min	MPa	2,600	2,400		4,140			2,690		
Izod Impact Strength	ASTM D 256	(notched) 1/8	kgf-cm/cm	50	55	10	7	8	6.5	5		
Charpy Impact Strength	ISO 179 1eA	(notched)	KJ/m²		30	10	6	8		5		
Rockwell Hardness	ASTM D785	R-Scale	-	120	116	112	111	114	120	120		
Thermal Properties												
Heat Deflection Temperature	ASTM D648	18.56kgf/cm²	°C									
VICAT Softening Temperature	ISO R 306	5kg, 50°C/hr	°C	98	93	94	100	95	92	94		
Flame Characteristics												
Flammability	UL94	HB	mm									
Flammability	UL94	V1	mm				1.0	1.0				
Flammability	UL94	V0	mm	2.0, 3.0	1.5, 2.0, 3.0	1.2~3.0	1.2	1.2	1.0, 3.0	1.0, 3.0		
Flammability	UL94	5VB	mm									

FLAME RETARDANT PC / ABS

				Flame Retardant PC/ABS						
				Metal Plating	Eco-Friendly				Luminous	Extrusion
Properties	Test Method	Condition	Unit	QP-1010	GC-1015	GC-1017	GC-1050	GC-1150	LX-1031	EF-1031
Physical Properties										
Specific Gravity	ASTM D792	Natural color	-	1.15	1.18	1.17	1.23	1.29	1.2	1.19
Melt Flow Index	ASTM D1238	220°C, 10kg	g/10min	50	28	46	25	31		
	ASTM D1238	250°C, 10kg	g/10min						30	17
Mold Shrinkage	ASTM D955		%		0.5-0.7	0.5-0.7				0.5-0.7
Mechanical Properties										
Tensile Strength	ASTM D638	50mm/min	kgf/cm²	580	620	580	580	650	600	670
Elongation at Break	ASTM D638	50mm/min	%						830	
Flexural Strength	ASTM D790	2.8mm/min	kgf/cm²	850	900	850	860	950		950
	ISO 178	2mm/min	MPa	85				93	75	92
Flexural Modulus	ASTM D790	2.8mm/min	kgf/cm²	23,100	27,000	25,000	27,700	41,000	25,000	25,000
	ISO 178	2mm/min	MPa	2,310				3,922	2,100	2,450
Izod Impact Strength	ASTM D 256	(notched) 1/8	kgf-cm/cm	22	50	45	60	7	46	85
Charpy Impact Strength	ISO 179 1eA	(notched)	KJ/m²					7	42	
Rockwell Hardness	ASTM D785	R-Scale	-	107	115	113		115	116	120
Thermal Properties										
Heat Deflection Temperature	ASTM D648	18.56kgf/cm²	°C		90	85			91	101
VICAT Softening Temperature	ISO R 306	5kg, 50°C/hr	°C	89	97	92	97	96	73	112
Flame Characteristics										
Flammability	UL94	HB	mm							
Flammability	UL94	V1	mm	2.5						
Flammability	UL94	V0	mm	3.2	1.5	2.0	1.2-3.0	1.2-1.3		1.5
Flammability	UL94	5VB	mm		2.0	2.0				

FLAME RETARDANT PC / ABS, PC / ABS / GF

				Extrusion	PC/ABS/GF			
					GF 5%	GF 12%	GF 15%	GF 20%
Properties	Test Method	Condition	Unit	EF-1032	HM-1051G	WP-1120	LS-1150G	HM-1202
Physical Properties								
Specific Gravity	ASTM D792	Natural color	-	1.19	1.20	1.22	1.29	1.36
Melt Flow Index	ASTM D1238	220°C, 10kg	g/10min		19			
	ASTM D1238	250°C, 10kg	g/10min	20			24	70
Mold Shrinkage	ASTM D955		%	0.5-0.7	0.4-0.6	0.5-0.7	0.2-0.4	
Mechanical Properties								
Tensile Strength	ASTM D638	50mm/min	kgf/cm²	670		760		1000
Elongation at Break	ASTM D638	50mm/min	%					
Flexural Strength	ASTM D790	2.8mm/min	kgf/cm²	950	1300	1150	1200	1100
	ISO 178	2mm/min	MPa	95		125	135	110
Flexural Modulus	ASTM D790	2.8mm/min	kgf/cm²	24,000	35,000	37,000	41,000	5,7000
	ISO 178	2mm/min	MPa	2,400		3,800	4,400	5,700
Izod Impact Strength	ASTM D 256	(notched) 1/8	kgf-cm/cm		8	12	8	5
Charpy Impact Strength	ISO 179 1eA	(notched)	KJ/m²			11	8	
Rockwell Hardness	ASTM D785	R-Scale	-	120				
Thermal Properties								
Heat Deflection Temperature	ASTM D648	18.56kgf/cm²	°C	95	102	127	120	
VICAT Softening Temperature	ISO R 306	5kg, 50°C/hr	°C	107		130		
Flame Characteristics								
Flammability	UL94	HB	mm					
Flammability	UL94	V1	mm		1.5-1.6			
Flammability	UL94	V0	mm	1.5				1.5
Flammability	UL94	5VB	mm					

INFINO®

Samsung Cheil Industries provides superior quality products which can meet specific requirements such as high impact, high heat and chemical resistance with product pellet of PC/ABS, PC/ASA, PC/PMMA, mPPE, PA, PBT, PPS beyond typical polycarbonate resin. *INFINO* can help environmental preservation through production with the eco-friendly non-phosgene method, and give freedom to the design concept by maintaining the original transparency and color of PC.

Samsung Cheil **Worldwide**

HEADQUARTERS

Samsung Cheil Industries Inc.
332-2 Gocheon-dong Uiwang-si Gyeonggi-do,
437-711, Republic of Korea
TEL: +82-31-596-3403 FAX: +82-31-596-3490
E-mail: chemical@samsung.com

GLOBAL SUBSIDIARY

Los Angeles, USA
Samsung Chemical Inc.
14251 E. Firestone Blvd. Suite 101La Mirada,
CA 90638, USA
TEL: +1-562-229-1307 FAX: +1-562-926-9930
E-mail: james.ham@samsung.com

Frankfurt, Germany
Samsung Chemical Europe GmbH
Am Kronberger Hang 6, 65824 Schwalbach am
Taunus, Germany
TEL: +49-6196-66-7490 FAX: +49-6196-66-7466
E-mail: jason.chung@samsung.com

Shanghai, China
Samsung Chemical Material Trading
(Shanghai) Co., Ltd.
Rm. 2701, Shanghai Int'l Trade Center,
2201 Yan An Rd.(W) Shanghai 200336, China
TEL: +86-21-6270-3000(325) FAX: +86-21-6275-6882
E-mail: yingshun.lee@samsung.com

Bangkok, Thailand
Samsung Chemical Thailand
16th floor, Empire Tower, 195 South Sathorn
Road, Yannawa, Sathorn, Bangkok, 10120,
Thailand
TEL: +66-2-624-6777 FAX: +66-2-624-6780
E-mail: ssuk.chae@samsung.com

Tokyo, Japan
Samsung Chemical Inc.
ROPPONGI T-CUBE 17F 3-1-1, Roppongi, Minato-ku,
Tokyo 106-8532, Japan
TEL: +81-3-6234-2197 FAX: +81-3-6234-2253
E-mail: c77.song@samsung.com

SALES / SERVICE OFFICE

ASIA

Shenzhen, China
RM2503,Modern International Building,No.3038,
Jintian Rd.S., Futian District, Shenzhen 518034, China
TEL: +86-755-8203-2353 FAX: +86-755-8203-2321
E-mail: darren.jin@samsung.com

Tianjin, China
1802 Xinyin Buiding 7 Youyi Road, Hexi District,
Tianjin 300074, China
TEL: +86-22-2836-4261 FAX: +86-22-2836-4268
E-mail: zhengdao.lee@samsung.com

Nagoya, Japan
451-6040 Aichi-ken, Nagoya-shi, Nishi-ku,
Ushijima-cho 6-1, Nagoya Lucent Tower 40F, Japan
TEL: +81-52-569-1807
E-mail: boin56.noh@samsung.com

Osaka, Japan
540-6006 6F, Crystal Tower, 1-2-27, Shiromi,
Chuo-ku Osaka 540-6006, Japan
TEL: +81-6-6949-3162 FAX: +81-6-6949-5133
E-mail: f.naoki@samsung.com

Kuala Lumper, Malaysia
50250 Suite 19, Level 28, Central Plaza, 34, Jalan
Sultan Ismail, Kuala Lumpur Federal Territory,
Malaysia
TEL: +60-3-2174-4534, 4570 FAX: +60-3-2147-4666
E-mail: jeffrey.kang@samsung.com

Chennai, India
No, 672 Level 6, Regus Citi Centre, 10/11, Dr.Radha
Krishnan Salai Mylapore, Chennai, 600 004, India
TEL: +91-98401-04251
E-mail: deepak.lee@samsung.com

Delhi, India
122 002 3rd FL, Tower-C, Vipul Tech Square,
Sector-43, Golf Course Road, Grugaon, India
TEL : +91-81302-19193
E-mail : yogendra.kang@samsung.com

DUBAI U.A.E.
PO Box 48969 Rania Business Center,
3rd Floor, Flat 302, Al Barsha 1 DUBAI U.A.E.
TEL: +971-4-447-3411 FAX: +971-4-447-3412
E-mail: moon357@samsung.com

AMERICA

Chicago, USA
935 National Pkwy, Suite 93520Schaumburg,
IL 60173, USA
TEL: +1-847-407-2845 FAX: +1-847-407-2819
E-mail: jerry.tennant@samsung.com

San Diego, USA
2020 Camino Del Rio North, Suite 520, San Diego,
CA 92108, USA
TEL: +1-619-278-0961 FAX: +1-619-278-0964
E-mail: jongho82.yang@samsung.com

Detroit, USA
3201 university Drive, Suite 360, Auburn Hills,
MI 48326, USA
TEL: +248-276-8484 FAX: +248-276-8482
E-mail: brian.grosser@samsung.com

EUROPE

Bratislava, Slovakia
Karadzicova 8/A, Bratislava, 821 08, Slovakia
TEL: +421-90-170-2001
E-mail: jh2407.kim@samsung.com

Istanbul, Turkey
80280 Ozsezen Is Merkezi Kat:6/A Blok A Buyukdere
Cad. No.122 80280 Esentepe Istanbul, Turkey
TEL: +90-541-231-0314
E-mail: ferhat.gungor@samsung.com

PLANT

Yeosu, Republic of Korea
62 Pyeongyeo-Dong, Yeosu-si, Jeollanam-do,
Republic of Korea
TEL: +82-61-689-1221 FAX: +82-61-689-1144
E-mail: heuicheol.lee@samsung.com

Tianjin, China
300385 China Tianjin No.20, 5Th Saida Branch Rd.,
Xiqing Ecnomic Development Dist., China
TEL: +86-22-5868-0291 FAX: +86-22-5868-0299
E-mail: mc007.jeon@samsung.com

Kornye, Hungary
2851 Uveggyar ut. 2 Kornye, Hungary
TEL: +36-34-814-120
E-mail: bt.hyun@samsung.com

Tijuana, Mexico
Aguila Americana No.20101 Parque Industrial
el Aguila Tijuana, Baja California. CP 22215,
Mexico
TEL: +52-664-627-4947
E-mail: psy13560@samsung.com

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