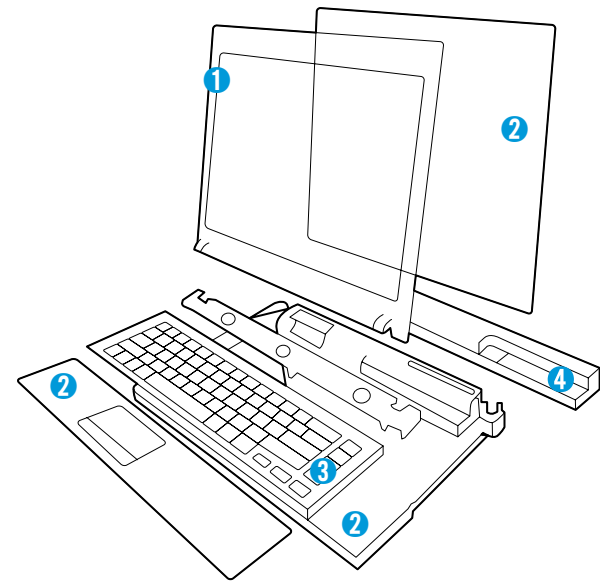






Notebook PC Applications



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1. Front Bezel
FR PC/ABS NH-1015V, GC-1015
FR PC/ABS Talc 5% NH-1051, GC-1050
FR PC/PMMA NF-3017
FR PC/ABS NH-1021
- 

2. Main Housing
FR PC/ABS NH-1015V, GC-1015
FR PC/ABS Talc 5% NH-1051, GC-1050
FR PC/ABS Talc 15% NH-1150HH, GC-1150
FR PC/GF NH-3208GL, NH-3400G
FR PPA/GF MX-4500G
- 

3. Keyboard Frame
FR PC/PMMA NF-3017
FR PC/ABS NH-1021
High gloss ABS HG-0760TV
- 

4. Battery Pack
FR PC UF-1017S, GC-1019

Technical Information

Test Method	Condition	Unit	PC/GF			PPA/GF	PCM PC/ABS	PCM PC/ABS/Talc		PCM PC	PC/PMMA	PC/ABS	PC/ABS/Talc					PC
			GF 20%	GF 30%	GF 40%	GF 50%	High Impact	Talc 5%	Talc 15%	Battery	High Gloss	High Impact	High Gloss	Talc 5%	Talc 10%	Talc 15%	Battery	
			NH-3208GL	HM-3301GL	NH-3400G	MX-4500G	GC-1015	GC-1050	GC-1150	GC-1019	NF-3017	NH-1015V	NH-1021	NH-1051	NH-1101	NH-1150HH	UF-1017S	
PHYSICAL PROPERTIES																		
Specific Gravity	ASTM D792	Natural Color	g/cm ³	1.35	1.41	1.55	1.63	1.18	1.23	1.29	1.12	1.19	1.18	1.2	1.2	1.23	1.29	1.19
Melt Flow Index	ASTM D1238	220°C, 10kg	g/10min	23.2	7			28	24.6	31	18		30	28	23	26	30	19
		250°C, 2.16kg	g/10min			40 ¹⁾						21						
	ISO 527-1A	220°C, 10kg	g/10min	24						31		21 ²⁾	29	28	26	25	30	17
Mold Shrinkage	ASTM D955	-	%	0.2-0.4	0.1-0.3	0.1-0.3	0.1-0.2	0.5-0.7					0.5-0.7				0.2-0.4	
MECHANICAL PROPERTIES																		
Tensile Strength at Yield	ASTM D638	50mm/min	kgf/cm ²	1,070 ³⁾	1,200	1,100	2,000	620	580	650	650	650	600	670	590	630	600	620
	ISO 527-1A	50mm/min	MPa	120						64		65	61	94	56	61	60	61
Flexural Strength	ASTM D790	2.8mm/min	kgf/cm ²	1,400	1,900	1,400	2,500	900	860	950	1,000	900	870	950	850	930	870	910
	ISO 178	2mm/min	MPa	159						93		98	89	94	86	93	90	90
Flexural Modulus	ASTM D790	2.8mm/min	kgf/cm ²	59,300	75,000	100,000	170,000	27,000	27,700	41,000	27,000	25,000	24,000	26,000	27,000	33,000	38,000	23,000
	ISO 178	2mm/min	MPa	6,400						3,900		2,650	2,500	2,500	2,700	3,400	3,800	24,000
Izod Impact Strength	ASTM D256	(notched) 1/8	kgf-cm/cm	9	16	7	9	50	60	7	65	5	55	30	35	10	8	65
Charpy Impact Strength	ISO 179 1eA	(notched)	KJ/m ²	10						7		7	19	20	35	13	8	67
Izod Impact Strength	ISO 180 1A	(notched)	KJ/m ²	9						6		6.5	30	30	36	13	9	64
Rockwell Hardness	ASTM D785	R-Scale	-	91	93			115		115	120	120	118	120	113	112	110	119
	ISO 2039-2	R-Scale	-									120	118	120	113	115	110	120
THERMAL PROPERTIES																		
Heat Deflection Temperature	ASTM D648	18.6kgf/cm ² , 6.4mm	°C	93	136	85	250	90			94	-	86		82		83	
VICAT Softening Temperature	ISO R306	B/50	°C					97	97	96	107	-	102	100	98	94	95	109
FLAME CHARACTERISTICS																		
Flammability	UL94	V-2	mm															0.4
		V-1	mm		1.5										1.0		1.0	
		V-0	mm	0.75	3.0	1.0	0.8	1.5	1.2	1.2	0.8	1.0	1.5	1.0	1.5	1.2	1.2	0.7

¹⁾ 250°C, 10kg
²⁾ 250°C, 2.16kg
³⁾ 5mm/min

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CREATE INFINITE POSSIBILITIES

Notebook PC

Slim, Light & More with *INFINO*® PC Alloy & PPA

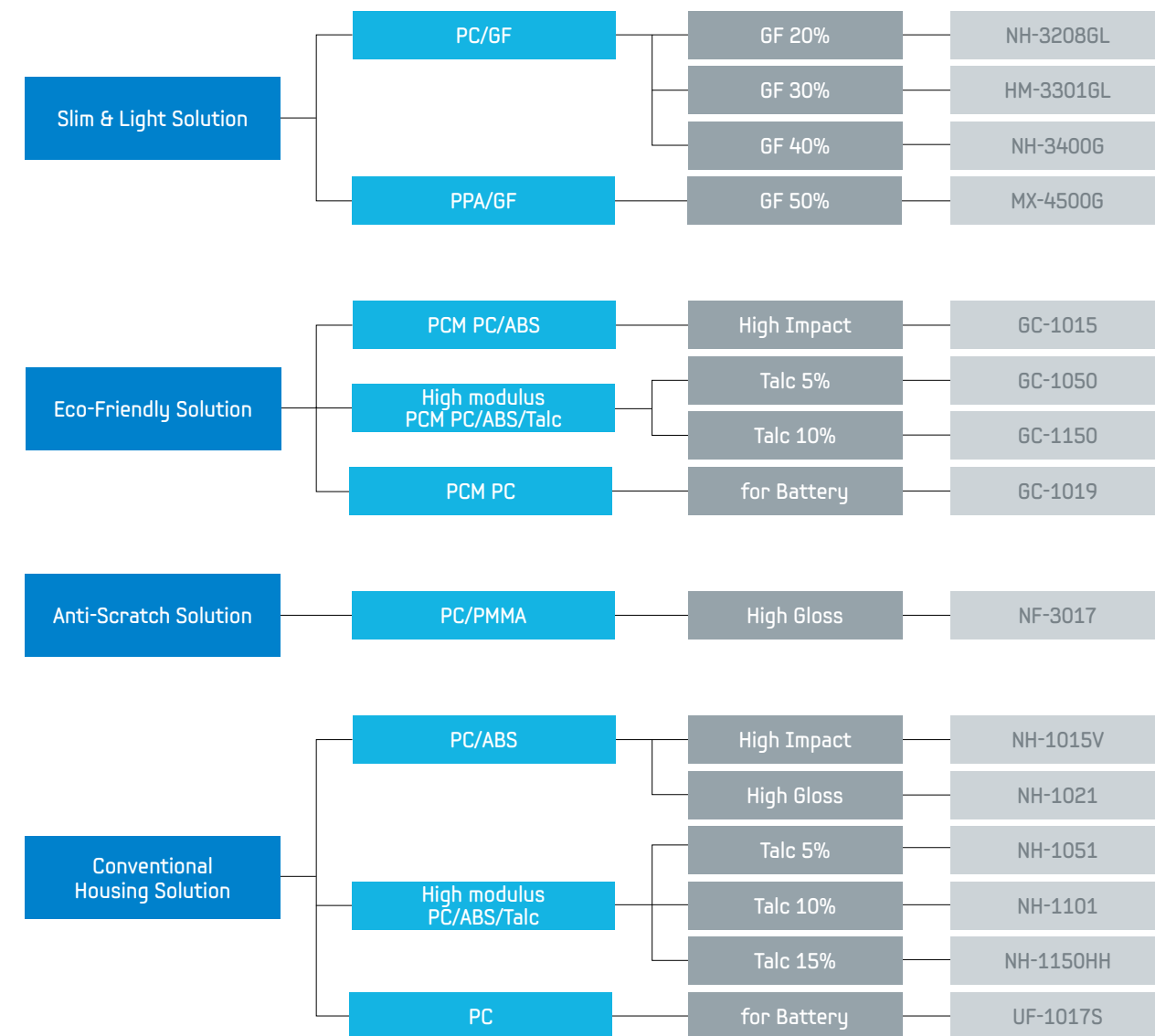


SAMSUNG SDI has developed and expanded its Notebook PC material line-up according to the growing market for slimmer and more lightweight Notebook PC models.

Requirements for Notebook PC

- Lightweight and slim design
- Metal replacement materials for weight reduction
- High stiffness to bolster lightweight and slim design
- Recyclable plastics in line with the rising demand for eco-friendly materials
- A wide range of colors and paints to reflect more fashionable Notebook PC models
- Excellent processability (IMR)
- High impact strength, high heat resistance, flame retardancy, anti-scratch, high flowability

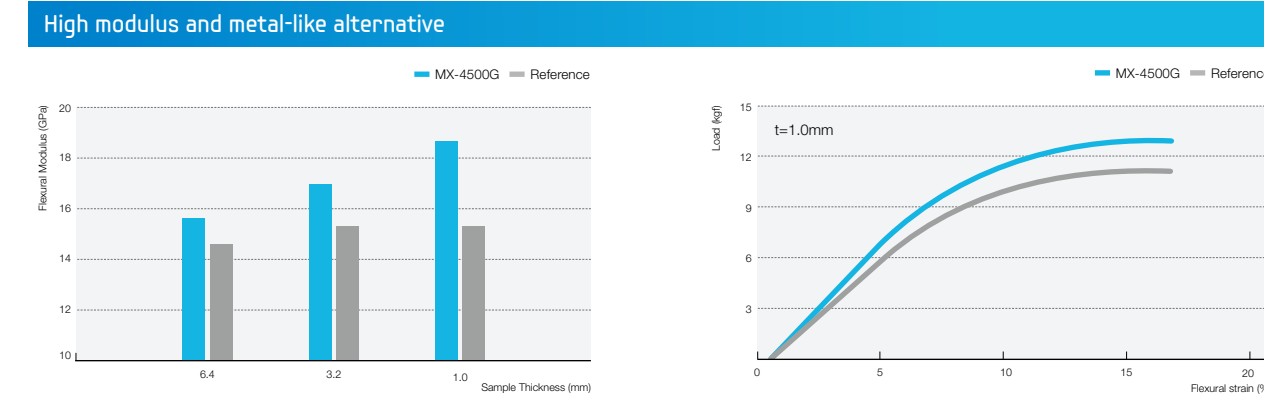
Product Portfolio



INFINO® PC Alloy & PPA for Notebook PC

SLIM & LIGHT SOLUTION

INFINO® PPA/GF MX-4500G and PC/GF are high stiffness materials that can replace metals. Material selection is available according to the content of GF for slim and lightweight design.



ECO-FRIENDLY SOLUTION

INFINO® PC/ABS GC series is PCM(Post Consumer Material) based on recycled plastics. SAMSUNG SDI utilizes its top-notch polymerization technology to produce the series, which has the same level of properties with general PC/ABS and can be applicable to TV, monitor and mobile phone.

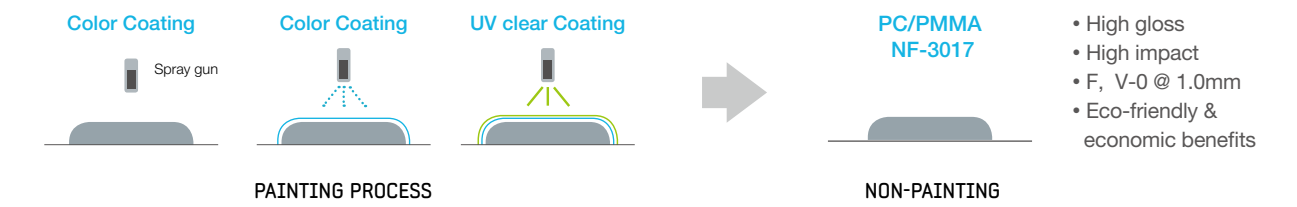


- Production Control with Specialized Line
- Quality Control
 - Certification of PCM & content
 - All property data
 - Contamination & color
 - RoHS

	PCM 30%	PC/ABS	PC/ABS/Talc	
Grade		GC-1015	GC-1050	GC-1150
Flammability		1.5mm V-O	1.2mm V-O	1.2mm V-O

NON-PAINTING ANTI-SCRATCH SOLUTION

INFINO® PC/PMMA NF-3017 is the eco-friendly material that does not require a painting process. The product comes with not only high gloss but excellent properties including high impact strength, high heat resistance and high flowability, providing efficient processability and economic benefits.



CONVENTIONAL HOUSING SOLUTION

INFINO® PC/ABS NH series is suitable for Notebook PC housing material in consideration of its excellent properties such as high flowability, high stiffness, high gloss and flame retardancy.

