

INFINO FR PC Solution

INFINO FR PC has excellent flame retardant feature for thin-wall part and impact strength, and provides optimal solutions for various IT adapter devices.

>> Excellent flame retardant & electrical properties

Properties	Test Method		EN-1052	EN-1052W	HN-1064F	GC-1022
GWIT	IEC 60995-2-13	1.5mm	825	825	825	800 (3.0mm)
GWFI	IEC 60995-2-12	1.5mm	960	960	960	960 (3.0mm)
BPT	IEC 60695-10-2	°C	130	130	130	125
CTI	IEC 60112	3.2mm	3	3	3	-

* GWIT (Glow Wire Ignitability Temperature)

* GWFI (Glow Wire Flammability Index)

* BPT (Ball Pressure Test)

* CTI (Comparative Tracking Index)

Eco-friendly Recycled Plastics : FR PCM PC GC-1022 (PCM 20%)



- Higher credibility for achieving certification
- Reduction of waste in the field and crude oil
- Meet the RoHS regulation & IEEE 1680
- Heat resistance : 1.5mm V-0, RTI 130°C
- Pure white color available

01 Post Consumer Collectors

02 Processing to Pellet

03 PC, Colorant Base & Additive

04 Eco-friendly Recycled Plastics

Product Selection Guide

Item	Measuring Method	Condition	Unit	INFINO FR PC				INFINO FR PC/GF	INFINO FR PC/ABS		
				EN-1052	EN-1052W	HN-1064F	GC-1022 (PCM 20%)	HN-3104 (10%)	NH-1015V	NH-1034	NH-1039

Physical Properties

Item	Measuring Method	Condition	Unit	EN-1052	EN-1052W	HN-1064F	GC-1022 (PCM 20%)	HN-3104 (10%)	NH-1015V	NH-1034	NH-1039
Specific Gravity	ASTM D792	-	g/cm ³	1.18	1.18	1.18	1.18	1.28	1.17	1.18	1.18
Melt Flow Index	ASTM D1238	250°C, 10kg	g/10min	19	30	38	30	12.5	-	-	-
		220°C, 10kg	g/10min	-	-	-	-	-	30	40	12
	ISO 1133	250°C, 10kg	g/10min	19	30	38	30	12.5	-	-	-
Mold Shrinkage	ASTM D955	Flow at 3.2mm(MD)	%	0.54-0.66	0.4-0.7	0.4-0.7	0.4-0.7	0.3-0.6	0.5-0.7	0.3-0.6	0.4-0.7

Mechanical Properties

Item	Measuring Method	Condition	Unit	EN-1052	EN-1052W	HN-1064F	GC-1022 (PCM 20%)	HN-3104 (10%)	NH-1015V	NH-1034	NH-1039	
Tensile Strength	ASTM D638	50mm/min	kgf/cm ²	530	590	600	590	550	650	580	650	
			MPa	55	55	60	55	60	61	55	61	
Flexural Strength	ASTM D790	2.8mm/min	kgf/cm ²	760	800	800	800	1,000	890	850	900	
			MPa	80	80	80	80	90	89	80	85	
Flexural Modulus	ASTM D790	2.8mm/min	kgf/cm ²	21,000	21,000	21,000	21,000	35,000	24,000	23,000	24,500	
			MPa	2,100	2,100	2,100	2,100	3,500	2,550	2,300	2,400	
Izod Impact Strength (notched)	ASTM D256	1/4" at 23°C	kgf-cm/cm	55	-	-	-	8	-	-	-	
				1/8" at 23°C	72	60	60	60	10	55	50	65
				ISO 180 1A	at 23°C, 4mm	kJ/m ²	65	50	35	50	10	14
Charpy Impact Strength (V-notched)	ISO 179 1eA	at 23°C, 4mm	kJ/m ²	70	50	30	50	10	17	15	50	

Thermal Properties

Item	Measuring Method	Condition	Unit	EN-1052	EN-1052W	HN-1064F	GC-1022 (PCM 20%)	HN-3104 (10%)	NH-1015V	NH-1034	NH-1039		
VICAT Softening Temperature	ISO R 306	B/50	°C	142	142	140	142	-	100	100	110		
Heat Deflection Temperature	ASTM D648	18.56kgf/cm ² , 6.4mm	°C	129	126	125	127	140	86	88	98		
			ISO 75-2	1.8MPa, 4mm	°C	121	123	120	123	137	82	82	
RTI	UL746B	1.5mm	°C	130	130	130	130	125	90	60	60		
			Imp	1.5mm	°C	130	130	130	130	105	85	60	60
			Str	1.5mm	°C	130	130	130	130	120	90	60	60

Flame Retardant Properties

Item	Measuring Method	Condition	Unit	EN-1052	EN-1052W	HN-1064F	GC-1022 (PCM 20%)	HN-3104 (10%)	NH-1015V	NH-1034	NH-1039
Flammability	UL 94	-	mm	1.5, 3.0 V-0 0.75 V-2	1.5, 3.0 V-0 0.75 V-2	1.5, 3.0 V-0 0.75 V-2	0.75 V-2 1.5, 3.0 V-0	1.5 V-0 3.0 5VA	1.5 V-0 3.0 5VA 2.0 5VB	1.2 V-0 2.5 5VA 2.0 5VB	1.5 V-0 2.5 5VB
GWFI	IEC 60995-2-12	1.5mm	°C	960	960	960	960	960	960	-	960
GWIT	IEC 60995-2-13	1.5mm	°C	825	825	825	800	850	775	-	800

Electrical Properties

Item	Measuring Method	Condition	Unit	EN-1052	EN-1052W	HN-1064F	GC-1022 (PCM 20%)	HN-3104 (10%)	NH-1015V	NH-1034	NH-1039
CTI	UL746	-	PLC	3	3	3	-	3	0	-	0

* The above values are only the representatives of natural color, not for guarantee.

Adapter & Charger

Material Solution for
Mobile, TV & Laptop Adapter and EV Charger



Market Trends & Requirements

“Market is expanding for adapters and chargers”

- AC/DC adapters are manufactured separately to apply various designs for electric/electronic products.
- Diversification of IT products using battery; demand for quick charge products
- Higher demand for and supply of electric vehicles across the world



Resistance to Heat & Flame

High Flame Retardant Feature & Long-term Thermal Stability



Durability

Modulus & Impact Strength without Deformation & Breakage



Eco-friendly

PCM Based Materials - Recycled (Post Consumer Material)

Product Portfolio

INFINO FR PC	Standard	RTI 130 / MI 19 / V-0 1.5mm	EN-1052	Adapter
	High Flow	RTI 130 / MI 30 / V-0 1.5mm	EN-1052W	Adapter
	Ultra High Flow	RTI 130 / MI 38 / V-0 1.5mm	HN-1064F	Adapter
	PCM	RTI 130 / MI 30 / V-0 1.5mm	GC-1022	Adapter
	Weather Resistance	f1 / V-0 1.5mm / Low Temp. Impact	UH-1053	EV Charger
INFINO FR PC/GF	Weather Resistance	RTI 105 / f1 / V-0 1.5mm	HN-3104 Series	EV Charger
INFINO FR PC/ABS	Standard	RTI 90 / MI 30 / V-0 1.5mm	NH-1015V	Laptop etc.
	High Flow	MI 40 / V-0 1.2mm / 5VA 2.5mm	NH-1034	EV Charger
	High Impact	V-0 1.5mm / Chemical Resistance	NH-1039	EV Charger

Material Solutions

INFINO FR PC Solution : EN-1052, EN-1052W, HN-1064F, GC-1022



Flammability



Electrical Property



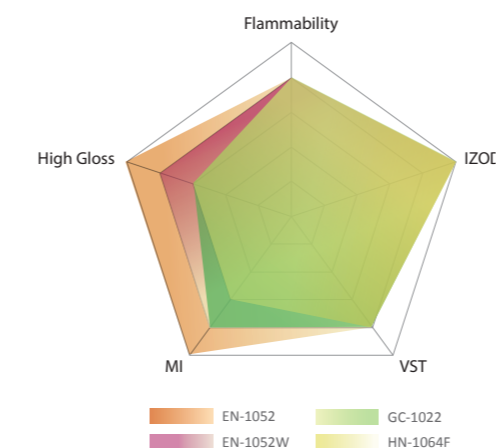
Impact Strength



Flow-ability

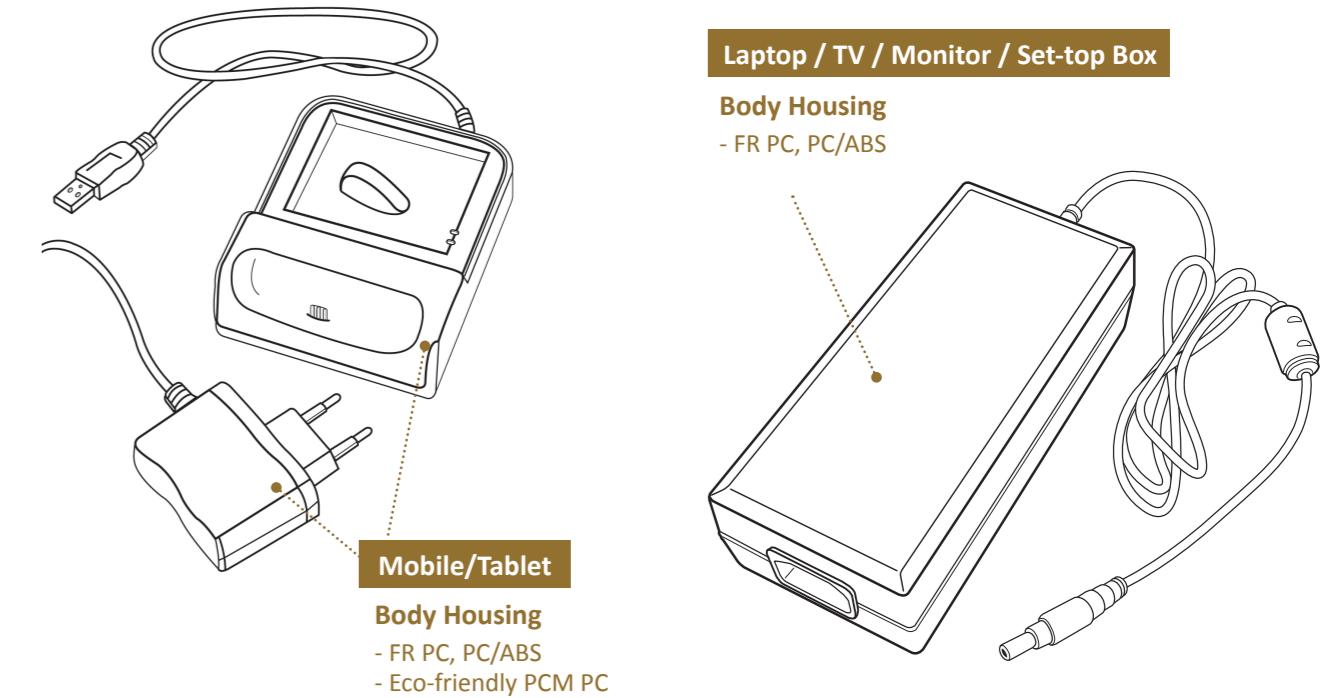


Chemical Resistance



Explore Materials & Applications

Adapter & Charger



EV Charger

