

LNP™ Copolymer Resins Solutions in Consumer Electronics Industry

Copolymer resin provides differentiated value propositions in consumer electronics which are mainly:

Low temperature impact resistance (Minimum -60°C) as per compared with standard PC, has enhanced chemical and weather resistance. Glass fiber reinforced grades will also have better toughness. These products are available in flame retardant and non flame retardant ranges. Majority of them can be matched to multiple color requirements.

Housing Components

EXL1414(T)
EXL1132(T)
MPX 1, MPX 2,
FXEMPX1, FXEMPX2
EXL9414, EXL9112, EXL9111...

Rigid Frame Material (Glass Fiber Reinforced)

PC+10GF EXL4419 EXL5689 HFD4271
PC+20GF HFD4472 EXL4412...

Light Shielding Material

PC FXE1414L
PC+10GF FXE4271L
PC+20GF FXE4472L

Post Consumer Recycling Environmental Friendly Material

EXL8414 25% PCR
EXL8134 30% PCR
EXL8454 50% PCR
EXL8483 80% PCR
EXL9414TRC 21% PCR

New Developed Grades

Meeting fast charging and flame retardant requirements. Match IMT process, high flow and high impact new material. IEC62368
EXL9111

20% Reinforced Glass Fiber Copolymer new material
EXL4412

Scratch resistance, high Impact resistance and excellent chemical resistance transparent new material
SLX2466T

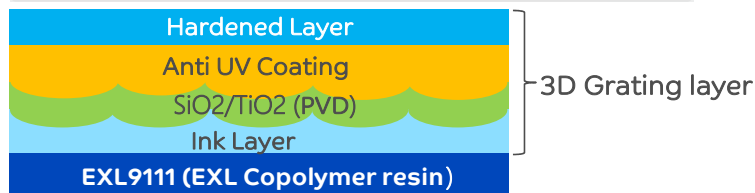
High heat resistance, high definition transparency, high refractive index and wide molding window new material.
CXT17/CXT19

Conform to fast charge flame retardant requirements, aligning with IMT* process, high flow and high impact new material – EXL9111

IMT*: Insert Mold Three-dimensional Technology



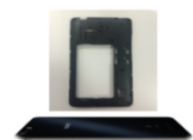
- Retaining superior toughness after paint spraying/coating
- UL flammability rating [V1@0.8mm](#), [V0@1.2mm](#), comply with IEC62368 requirements
- Chlorine-free, bromine-free, halogen-free
- High flowability for thin wall large format products
- Excellent impact resistance



Scratch resistance, high impact resistance, excellent chemical resistance transparent new material –SLX2466T



- High scratch resistance, resin hardness HB-F, pencil hardness up to 4H
- Superior impact resistance
- High transparency similar to light transmittance of standard PC
- Excellent chemical resistance that passed banana boat resistance test



Test Methods / Grade	SLX2466T	EXL1414T	Du*	DMX	PMMA
Pencil Hardness (Substrate)	HB-F	5B-3B	HB-H	H	2H
Pencil Hardness (after hardening)	4H	H	4H	4H	4-5H
Izod Notched Impact Strength -J/m	300-500	800	80-120	~30	~10
Chemical resistance	+++++	+++	++++	++++	+++

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EXL Copolymer Resins Solutions in Consumer Electronics Industry

EXL Copolymer Resins: Low Temperature, High Impact, Opaque Material Solutions

Ductility	MVR (300°C, 1.2kg)	Resin Solutions	
		Resin Code	Material Specifications
-60°C	10	EXL9330	V0/1.5mm, 5VA/3.0mm, f1
		EXL9330P	V0/1.5mm, V1/0.8mm, f1
		EXL9330S	V0/0.8mm, 5VA/2.5mm, f1, CTI=2
-40°C	10	EXL9414	V1/0.8mm, V0/1.0mm
		EXL9134	V0/1.5mm, 5VA/3.0mm, f1
-30°C	17	MPX1	UL94-HB/0.5mm
	13	MPX2	Good flow and Low Temp. Impact
-20°C	17	EXL9112	V0/1.5mm, 5VA/3.0mm
	10	EXL9132	V0/1.5mm, 5VB/3.0mm, UV, f1
-10°C	10	FL2000	V1/6mm, for structural form
	20	EXL9111	V1/0.8mm, V0/1.2mm

EXL Copolymer Resins: Low Temperature, High Impact Resistance with Post Consumer Recycling Material Solutions

Ductility	MVR (300°C, 1.2Kg)	Resin Code	Post Consumer Recycling Content	Material Specifications
Non FR	10	EXL8414	25%	UL-94, HB@0.75 mm
	15	EXL8134	30%	UL-94, HB@0.75 mm
	10	EXL8454	50%	UL-94, HB@0.75 mm
ECO FR	10	EXL8483	80%	UL-94, HB@0.75 mm
	12	EXL9414TRC	21%	UL-94, V0@1.5 mm

EXL Copolymer Resins: Low Temperature, High Impact Resistance and Transparent Material Solutions

Ductility	MVR (300°C, 1.2kg)	Resin Solutions	
		Resin Code	Material Specifications
-40°C	10	EXL9414T	V0/1.8mm, V1/1.5mm,
		EXL1434T	UV
		EXL1414T	V2/3.0mm, FXD/FXE/FXG/FXM1414T (Vfx)
-30°C	10	EXL1613T	Improved Chemical R for NCVm
		EXL1413T	FXD/FXE/FXG/FXM1414T (Vfx)
		EXL1433T	UV
-20°C	20	EXL1112T	HB
		EXL1132T	HB, UV
0°C	35	EXL1810T	HB
		FXD9810	V1/1.2mm

EXL Copolymer Resins: Reinforced Glass Fiber, Rigid Material Solutions

Ductility	MVR (300°C, 1.2Kg)	Flexural Modulus (MPa)	Notched Impact Strength (J/M at 23°C)	Resin Solutions	
				Resin Code	Material Specifications
9-10% GF	9	3150	340	EXL5689	9%GF, V0 1.5mm, good ESCR
	10	3200	280	EXL4419	9%GF, Non-FR
20% GF	12	5800	150	EXL4412	Well balanced MVR, NII, FM

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