

Product Texts

LNP™ THERMOCOMP™ COMPOUND D451RCC is a compound based on Recycle Polycarbonate resin containing Glass Fiber, Flame Retardant. Added features of this material include high modulus, good flatness, good impact performance, Non-Brominated & Non-Chlorinated Flame Retardant. Post-Consumer Recycling (PCR) polycarbonate content up to 35%.

UL Yellow Card Link: [E207780-104562814](https://www.ulprospector.com/PC/Products/104562814)

Processing/Physical Characteristics	Value	Unit	Test Standard
ASTM Data			
Melt Flow Index, MFI	16	g/10min	ASTM D 1238
Temperature	300	°C	-
Load	1.2	kg	-
Mold Shrinkage, MD	0.0014	mm/mm	ASTM D 955
Mold Shrinkage, TD	0.0025	mm/mm	ASTM D 955

Mechanical properties	Value	Unit	Test Standard
ISO Data			
Tensile Modulus	12000	MPa	ISO 527
Stress at break	146	MPa	ISO 527
Strain at break	2.2	%	ISO 527
Flexural modulus, 23°C	10600	MPa	ISO 178
Flexural strength	204	MPa	ISO 178
Charpy impact strength, +23°C	45	kJ/m ²	ISO 179/1eU
Charpy impact strength, -30°C	54	kJ/m ²	ISO 179/1eU
Charpy impact strength, +23°C, 3mm	48	kJ/m ²	ISO 179/1eU
Charpy impact strength, -30°C, 3mm	55	kJ/m ²	ISO 179/1eU
Charpy notched impact strength, +23°C	15	kJ/m ²	ISO 179/1eA
Charpy notched impact strength, -30°C	13	kJ/m ²	ISO 179/1eA
Charpy notched impact strength, +23°C, 3mm	15	kJ/m ²	ISO 179/1eA
Charpy notched impact strength, -30°C, 3mm	14	kJ/m ²	ISO 179/1eA
Izod impact strength, +23°C	45	kJ/m ²	ISO 180/1U
Izod notched impact strength, +23°C	15	kJ/m ²	ISO 180/1A
Izod notched impact strength	13	kJ/m ²	ISO 180/1A
Temperature	-30	°C	-
ASTM Data			
Tensile Modulus	12100	MPa	ASTM D 638
Elongation at Break	2.2	%	ASTM D 638
Flexural Modulus	9820	MPa	ASTM D 790
Flexural Strength	203	MPa	ASTM D 790
Izod Impact notched, 1/8 in	146	J/m	ASTM D 256
Izod Impact notched, Low-Temperature	124	J/m	ASTM D 256
Temperature	-30	°C	-
Izod Impact unnotched, 1/8 in	540	J/m	ASTM D 256

Thermal properties	Value	Unit	Test Standard
ISO Data			
Temp. of deflection under load, 1.80 MPa	111	°C	ISO 75-1/-2
Temp. of deflection under load, 0.45 MPa	117	°C	ISO 75-1/-2
Vicat softening temperature, B	118	°C	ISO 306
Coeff. of linear therm. expansion, parallel	16.6	E-6/K	ISO 11359-1/-2
Coeff. of linear therm. expansion, normal	52.1	E-6/K	ISO 11359-1/-2
Burning behav. at thickness h	V-0	class	IEC 60695-11-10
Thickness tested	0.6	mm	-
Yellow Card available	yes	-	-
ASTM Data			
UL 94 Flame rating	V-0	-	UL 94
Thickness tested	0.6	mm	-
Coefficient of Thermal Expansion, MD	15.8	E-6/K	ASTM D 696
Coefficient of Thermal Expansion, TD	50	E-6/K	ASTM D 696
DTUL @ 66 psi	114	°C	ASTM D 648

LNP™ THERMOCOMP™ Compound D451RCC

PC-GF

Saudi Basic Industries Corporation (SABIC)

DTUL @ 264 psi	110	°C	ASTM D 648
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Electrical properties	Value	Unit	Test Standard
ASTM Data			
Surface Resistivity	1E16	Ohm	ASTM D 257
Volume Resistivity	1E16	Ohm*cm	ASTM D 257

Other properties	Value	Unit	Test Standard
Density	1520	kg/m ³	ASTM D 792

Processing Recommendation Injection Molding	Value	Unit	Test Standard
Pre-drying - Temperature	110	°C	-
Pre-drying - Time	3 - 6	h	-
Processing humidity	≤0.02	%	-
Melt temperature	285 - 310	°C	-
Mold temperature	80 - 110	°C	-
Zone 1	260 - 280	°C	-
Zone 2	270 - 290	°C	-
Zone 3	280 - 300	°C	-
Nozzle temperature	285 - 305	°C	-
Screw speed	50 - 90	rpm	-
Back pressure	0.1 - 0.3	MPa	-

Characteristics**Processing**

Injection Molding

Special Characteristics

Flame retardant, Halogen-free, High impact or impact modified

Certifications

Recycled Resin Content

Applications

IT / Business Machine, Electrical and Electronical

Regional Availability

North America, Europe, Asia Pacific, South and Central America