

**Product Texts**

LNP THERMOCOMP D451RC compound is based on recycled Polycarbonate (PC) resin containing 40% glass fiber. Added features of this grade include: High Modulus, Low Warpage, Good Ductility, Non-Brominated & Non-Chlorinated Flame Retardant. Post-Consumer Recycling (PCR) Polycarbonate content up to 35%.

UL Yellow Card Link [E207780-103195752](https://www.ul.com/yellow-card/E207780-103195752)

Processing/Physical Characteristics	Value	Unit	Test Standard
<b>ISO Data</b>			
Melt volume-flow rate, MVR	51	cm <sup>3</sup> /10min	ISO 1133
Temperature	300	°C	-
Load	5	kg	-
<b>ASTM Data</b>			
Melt Flow Index, MFI	69	g/10min	ASTM D 1238
Temperature	300	°C	-
Load	5	kg	-
Mold Shrinkage, MD	0.15	mm/mm	ASTM D 955
Mold Shrinkage, TD	0.15	mm/mm	ASTM D 955

Mechanical properties	Value	Unit	Test Standard
<b>ISO Data</b>			
Tensile Modulus	11800	MPa	ISO 527
Stress at break	140	MPa	ISO 527
Strain at break	1.9	%	ISO 527
Flexural modulus	10700	MPa	ISO 178
Izod impact strength, +23°C, 4mm	34	kJ/m <sup>2</sup>	ISO 180/1U
Izod notched impact strength, +23°C, 4mm	12	kJ/m <sup>2</sup>	ISO 180/1A
Izod notched impact strength, -30°C, 4mm	11	kJ/m <sup>2</sup>	ISO 180/1A
<b>ASTM Data</b>			
Tensile Modulus	12300	MPa	ASTM D 638
Tensile Strength at Break	145	MPa	ASTM D 638
Elongation at Break	2	%	ASTM D 638
Flexural Modulus	10100	MPa	ASTM D 790
Izod Impact notched, 1/8 in	133	J/m	ASTM D 256
Izod Impact notched, Low-Temperature	115	J/m	ASTM D 256
Temperature	-30	°C	-
Izod Impact unnotched, 1/8 in	510	J/m	ASTM D 256

Thermal properties	Value	Unit	Test Standard
<b>ISO Data</b>			
Temp. of deflection under load, 1.80 MPa	112	°C	ISO 75-1/-2
Temp. of deflection under load, 0.45 MPa	118	°C	ISO 75-1/-2
Vicat softening temperature, B	121	°C	ISO 306
Vicat softening temperature, 120°C/h 50N	123	°C	ISO 306
Burning behav. at thickness h	V-0	class	IEC 60695-11-10
Thickness tested	0.6	mm	-
Glow Wire Flammability Index (GWFI)	960	°C	IEC 60695-2-12
Glow Wire Flammability Index (GWFI)	960	°C	IEC 60695-2-12
Glow Wire Ignition Temperature (GWIT)	875	°C	IEC 60695-2-13
GWIT - thickness tested (1)	1	mm	-
Glow Wire Ignition Temperature (GWIT)	875	°C	IEC 60695-2-13
GWIT - thickness tested (2)	2	mm	-
<b>ASTM Data</b>			
DTUL @ 66 psi	115	°C	ASTM D 648
DTUL @ 264 psi	110	°C	ASTM D 648

Electrical properties	Value	Unit	Test Standard
<b>ASTM Data</b>			
Surface Resistivity	>1E15	Ohm	ASTM D 257

**LNP™ THERMOCOMP™ Compound D451RC**

PC-GF40

Saudi Basic Industries Corporation (SABIC)

Volume Resistivity	>1E15	Ohm*cm	ASTM D 257
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Other properties	Value	Unit	Test Standard
Density	1520	kg/m <sup>3</sup>	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	-
Screw speed	50 - 90	rpm	-
Back pressure	0.1 - 0.3	MPa	-

**Characteristics****Processing**

Injection Molding

**Additives**

Flame retarding agent

**Special Characteristics**

Flame retardant

**Certifications**

Recycled Resin Content

**Regional Availability**

North America, Europe, Asia Pacific