LNP™ THERMOCOMP™ Compound D151RCC

PC-GF10 — Saudi Basic Industries Corporation (SABIC)

Product Texts

LNP THERMOCOMP D151RCC compound is based on recycled Polycarbonate (PC) resin containing 10% glass fiber. Added features of this grade include: High Modulus, Good Surface, Low Warpage, Good Ductility, Non-Brominated & Non-Chlorinated Flame Retardant. Post-Consumer Recycling (PCR) Polycarbonate content up to 50%.

UL Yellow Card E207780-104529301

Processing/Physical Characteristics	Value	Unit	Test Standard
ISO Data			
Melt volume-flow rate, MVR	**12**	cm³/10min	ISO 1133
Temperature	**300**	°C	-
Load	**1.2**	kg	-
ASTM Data			
Melt Flow Index, MFI	**13**	g/10min	ASTM D 1238
Temperature	**300**	°C	-
Load	**1.2**	kg	-
Mold Shrinkage, MD	**0.0032**	mm/mm	ASTM D 955
Mold Shrinkage, TD	**0.0042**	mm/mm	ASTM D 955

Mechanical properties	Value	Unit	Test Standard
ISO Data			
Tensile Modulus	**4320**	MPa	ISO 527
Yield stress	**81**	MPa	ISO 527
Yield strain	**3.1**	%	ISO 527
Stress at break	**78**	MPa	ISO 527
Strain at break	**3.5**	%	ISO 527
Flexural modulus, 23°C	**3900**	MPa	ISO 178
Flexural strength	**128**	MPa	ISO 178
Charpy impact strength, +23°C	**47**	kJ/m²	ISO 179/1eU
Charpy impact strength, -30°C	**51**	kJ/m²	ISO 179/1eU
Charpy notched impact strength, +23°C	**11**	kJ/m²	ISO 179/1eA
Charpy notched impact strength, -30°C	**6**	kJ/m²	ISO 179/1eA
Izod impact strength, +23°C	**41**	kJ/m²	ISO 180/1U
Izod notched impact strength, +23°C	**12**	kJ/m²	ISO 180/1A
Izod notched impact strength	**7**	kJ/m²	ISO 180/1A
Temperature	**-30**	°C	-
ASTM Data			
Tensile Modulus	**4320**	MPa	ASTM D 638
Tensile Strength at Yield	**81**	MPa	ASTM D 638
Tensile Strength at Break	**78**	MPa	ASTM D 638
Elongation at Yield	**3.2**	%	ASTM D 638
Elongation at Break	**3.5**	%	ASTM D 638
Flexural Modulus	**4100**	MPa	ASTM D 790
Flexural Strength	**132**	MPa	ASTM D 790
Izod Impact notched, 1/8 in	**120**	J/m	ASTM D 256
Izod Impact notched, Low-Temperature	**62**	J/m	ASTM D 256
Temperature	**-30**	°C	-
Izod Impact unnotched, 1/8 in	**680**	J/m	ASTM D 256

Thermal properties	Value	Unit	Test Standard
ISO Data			
Temp. of deflection under load, 1.80 MPa	**113**	°C	ISO 75-1/-2
Temp. of deflection under load, 0.45 MPa	**119**	°C	ISO 75-1/-2
Vicat softening temperature, B	**121**	°C	ISO 306
Coeff. of linear therm. expansion, parallel	**39**	E-6/K	ISO 11359-1/-2
Coeff. of linear therm. expansion, normal	**76**	E-6/K	ISO 11359-1/-2
Burning behav. at thickness h	**V-1**	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	**0.8**	mm	-
Coefficient of Thermal Expansion, MD	**37**	E-6/K	ASTM D 696
Coefficient of Thermal Expansion, TD	**76**	E-6/K	ASTM D 696
DTUL @ 66 psi	**120**	°C	ASTM D 648
DTUL @ 264 psi	**114**	°C	ASTM D 648

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	**1270**	kg/m³	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

Features
Ductile, Low Warpage

Certifications
Recycled Resin Content

Applications
IT / Business Machine, Electrical and Electronical

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