

**Product Texts**

LNP THERMOCOMP DC0041XX5 compound is based on PC Copolymer Resin containing 20% carbon fiber suitable for injection molding applications. Added features of this grade include: Higher Stiffness vs. glass fiber, Higher Strength. This halogen-free flame retardant resin is EN45545 R6 HL3 compliant and an ideal candidate for train interior applications (category R6).

Processing/Physical Characteristics	Value	Unit	Test Standard
<b>ISO Data</b>			
Melt volume-flow rate, MVR	5	cm <sup>3</sup> /10min	ISO 1133
Temperature	300	°C	-
Load	1.2	kg	-

Mechanical properties	Value	Unit	Test Standard
<b>ISO Data</b>			
Tensile Modulus	16200	MPa	ISO 527
Stress at break	160	MPa	ISO 527
Strain at break	2	%	ISO 527
Flexural modulus, 23°C	11800	MPa	ISO 178
Flexural strength	210	MPa	ISO 178
Charpy impact strength, +23°C	30	kJ/m <sup>2</sup>	ISO 179/1eU
Charpy notched impact strength, +23°C	8	kJ/m <sup>2</sup>	ISO 179/1eA
Izod impact strength, +23°C	30	kJ/m <sup>2</sup>	ISO 180/1U
Izod notched impact strength, +23°C	6	kJ/m <sup>2</sup>	ISO 180/1A
<b>ASTM Data</b>			
Tensile Modulus	16200	MPa	ASTM D 638
Tensile Strength at Break	170	MPa	ASTM D 638
Elongation at Break	3	%	ASTM D 638
Flexural Modulus	11800	MPa	ASTM D 790
Flexural Strength	220	MPa	ASTM D 790
Izod Impact notched, 1/8 in	55	J/m	ASTM D 256
Izod Impact unnotched, 1/8 in	420	J/m	ASTM D 256

Thermal properties	Value	Unit	Test Standard
<b>ISO Data</b>			
Temp. of deflection under load, 1.80 MPa	109	°C	ISO 75-1/-2
Temp. of deflection under load, 0.45 MPa	115	°C	ISO 75-1/-2
Vicat softening temperature, B	120	°C	ISO 306
Coeff. of linear therm. expansion, parallel	14	E-6/K	ISO 11359-1/-2
Coeff. of linear therm. expansion, normal	56	E-6/K	ISO 11359-1/-2
<b>ASTM Data</b>			
Coefficient of Thermal Expansion, MD	14	E-6/K	ASTM D 696
Coefficient of Thermal Expansion, TD	56	E-6/K	ASTM D 696
DTUL @ 66 psi	107	°C	ASTM D 648
DTUL @ 264 psi	96	°C	ASTM D 648

Electrical properties	Value	Unit	Test Standard
<b>ASTM Data</b>			
Surface Resistivity	10000	Ohm	ASTM D 257

Other properties	Value	Unit	Test Standard
Humidity absorption	0.15	%	Sim. to ISO 62
Density	1390	kg/m <sup>3</sup>	ISO 1183
Density	1390	kg/m <sup>3</sup>	ASTM D 792

Processing Recommendation Injection Molding	Value	Unit	Test Standard
Pre-drying - Temperature	90 - 100	°C	-
Pre-drying - Time	6 - 8	h	-
Processing humidity	≤0.002	%	-
Melt temperature	250 - 280	°C	-

Mold temperature	<b>60 - 90</b>	°C	-
Feed temperature	<b>40 - 80</b>	°C	-
Zone 1	<b>240 - 260</b>	°C	-
Zone 2	<b>250 - 270</b>	°C	-
Zone 3	<b>260 - 280</b>	°C	-
Nozzle temperature	<b>255 - 275</b>	°C	-
Back pressure	<b>0.3 - 0.7</b>	MPa	-

**Characteristics****Processing**

Injection Molding

**Special Characteristics**

Flame retardant, Halogen-free

**Features**

Low Smoke, Copolymer

**Regional Availability**

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