

# LNP<sup>TM</sup> THERMOCOMP<sup>TM</sup> COMPOUND D551

## DESCRIPTION

LNP THERMOCOMP D551 (or DF00A8P) is a compound based on 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.

## TYPICAL PROPERTY VALUES

Revision 20191217

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
<b>MECHANICAL</b>			
Tensile Stress, brk, Type I, 5 mm/min	154	MPa	ASTM D 638
Tensile Strain, brk, Type I, 5 mm/min	2.1	%	ASTM D 638
Tensile Modulus, 5 mm/min	15320	MPa	ASTM D 638
Flexural Stress, brk, 1.3 mm/min, 50 mm span	223	MPa	ASTM D 790
Flexural Modulus, 1.3 mm/min, 50 mm span	13820	MPa	ASTM D 790
Tensile Stress, break, 5 mm/min	153	MPa	ISO 527
Tensile Strain, break, 5 mm/min	1.9	%	ISO 527
Tensile Modulus, 1 mm/min	15130	MPa	ISO 527
<b>IMPACT</b>			
Izod Impact, unnotched, 23°C	520	J/m	ASTM D 4812
Izod Impact, notched, 23°C	127	J/m	ASTM D 256
Instrumented Impact Energy @ peak, 23°C	21	J	ASTM D 3763
Charpy 23°C, V-notch Edgew 80°10*4 sp=62mm	12	kJ/m <sup>2</sup>	ISO 179/1eA
Charpy 23°C, Unnotch Edgew 80°10*4 sp=62mm	38	kJ/m <sup>2</sup>	ISO 179/1eU
<b>THERMAL</b>			
HDT, 1.82 MPa, 3.2mm, unannealed	107	°C	ASTM D 648
CTE, -40°C to 40°C, flow	1.39E-05	1/°C	ASTM E 831
CTE, -40°C to 40°C, xflow	4.15E-05	1/°C	ASTM E 831
Relative Temp Index, Elec <sup>(1)</sup>	80	°C	UL 746B
Relative Temp Index, Mech w/impact <sup>(1)</sup>	80	°C	UL 746B
Relative Temp Index, Mech w/o impact <sup>(1)</sup>	80	°C	UL 746B
<b>PHYSICAL</b>			
Density	1.635	g/cm <sup>3</sup>	ASTM D 792
Mold Shrinkage, flow, 24 hrs	0.05 – 0.2	%	ASTM D 955
Mold Shrinkage, xflow, 24 hrs	0.05 – 0.2	%	ASTM D 955
Melt Volume Rate, MVR at 300°C/2.16 kg	17	cm <sup>3</sup> /10 min	ASTM D 1238
Melt Flow Rate, 300°C/5.0 kgf	48.6	g/10 min	ASTM D 1238
Melt Volume Rate, MVR at 300°C/5.0 kg	29	cm <sup>3</sup> /10 min	ASTM D 1238
<b>ELECTRICAL</b>			
Volume Resistivity	2.15E+16	Ohm-cm	ASTM D 257
Surface Resistivity	5.00E+16	Ohm	ASTM D 257
<b>FLAME CHARACTERISTICS <sup>(1)</sup></b>			
UL Yellow Card Link	<a href="#">E207780-101219669</a>	-	-
UL Recognized, 94V-0 Flame Class Rating	≥1	mm	UL 94

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
UL Recognized, 94V-1 Flame Class Rating	≥0.8	mm	UL 94
<b>INJECTION MOLDING</b>			
Drying Temperature	110	°C	
Drying Time	3 – 6	hrs	
Maximum Moisture Content	0.02	%	
Melt Temperature	285 – 310	°C	
Nozzle Temperature	285 – 305	°C	
Front - Zone 3 Temperature	280 – 300	°C	
Middle - Zone 2 Temperature	270 – 290	°C	
Rear - Zone 1 Temperature	260 – 280	°C	
Mold Temperature	80 – 110	°C	
Back Pressure	0.1 – 0.3	MPa	
Screw Speed	50 – 90	rpm	

(1) UL Ratings shown on the technical datasheet might not cover the full range of thicknesses and colors. For details, please see the UL Yellow Card.

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