

# LNPTM THERMOCOMPTM COMPOUND DC0041PQ

DC0041PQ

## DESCRIPTION

LNP THERMOCOMP DC0041PQ compound is based on Polycarbonate (PC) resin containing 20% carbon fiber. Added features of this grade include: Electrically Conductive, Non-Brominated, Non- Chlorinated Flame Retardant, Exceptional Processing.

GENERAL INFORMATION	
Features	Flame Retardant, Electrically Conductive, High Flow, Non Cl/Br flame retardant, Carbon fiber filled, High stiffness/Strength
Fillers	Carbon Fiber
Polymer Types	Polycarbonate (PC)
Processing Techniques	Injection Molding

INDUSTRY	SUB INDUSTRY
Building and Construction	Building Component
Consumer	Personal Accessory
Electrical and Electronics	Mobile Phone - Computer - Tablets
Industrial	Electrical

## TYPICAL PROPERTY VALUES

Revision 20230607

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
<b>MECHANICAL <sup>(1)</sup></b>			
Tensile Stress, brk, Type I, 5 mm/min	185	MPa	ASTM D638
Tensile Strain, brk, Type I, 5 mm/min	1.5	%	ASTM D638
Tensile Modulus, 5 mm/min	21000	MPa	ASTM D638
Flexural Stress, brk, 1.3 mm/min, 50 mm span	260	MPa	ASTM D790
Flexural Modulus, 1.3 mm/min, 50 mm span	18000	MPa	ASTM D790
<b>IMPACT <sup>(1)</sup></b>			
Izod Impact, unnotched, 23°C	500	J/m	ASTM D4812
Izod Impact, notched, 23°C	70	J/m	ASTM D256
Instrumented Dart Impact Total Energy, 23°C	10	J	ASTM D3763
<b>THERMAL <sup>(1)</sup></b>			
HDT, 1.82 MPa, 3.2mm, unannealed	86	°C	ASTM D648
CTE, -30°C to 30°C, flow	1.4E-05	1/°C	ASTM D696
CTE, -30°C to 30°C, xflow	3.5E-05	1/°C	ASTM D696
Relative Temp Index, Elec <sup>(2)</sup>	80	°C	UL 746B
Relative Temp Index, Mech w/impact <sup>(2)</sup>	80	°C	UL 746B
Relative Temp Index, Mech w/o impact <sup>(2)</sup>	80	°C	UL 746B
<b>PHYSICAL <sup>(1)</sup></b>			
Specific Gravity	1.32	-	ASTM D792
Mold Shrinkage, flow, 24 hrs <sup>(3)</sup>	0.1	%	ASTM D955

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
Mold Shrinkage, xflow, 24 hrs <sup>(3)</sup>	0.36	%	ASTM D955
<b>ELECTRICAL <sup>(1)</sup></b>			
Volume Resistivity	3.19E+06	Ω.cm	ASTM D257
Surface Resistivity	1.40E+06	Ω	ASTM D257
<b>FLAME CHARACTERISTICS <sup>(2)</sup></b>			
UL Yellow Card Link	<a href="#">E121562-101712652</a>	-	-
UL Recognized, 94V-0 Flame Class Rating	≥0.8	mm	UL 94
UL Recognized, 94V-1 Flame Class Rating	≥0.7	mm	UL 94
<b>INJECTION MOLDING <sup>(4)</sup></b>			
Drying Temperature	70	°C	
Drying Time	4	Hrs	
Maximum Moisture Content	0.05	%	
Melt Temperature	275 – 300	°C	
Front - Zone 3 Temperature	280 – 300	°C	
Middle - Zone 2 Temperature	270 – 290	°C	
Rear - Zone 1 Temperature	260 – 280	°C	
Mold Temperature	60 – 85	°C	
Back Pressure	0.2 – 0.3	MPa	
Screw Speed	30 – 63	rpm	

- (1) The information stated on Technical Datasheets should be used as indicative only for material selection purposes and not be utilized as specification or used for part or tool design.
- (2) 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.
- (3) Measurements made from laboratory test coupon. Actual shrinkage may vary outside of range due to differences in processing conditions, equipment, part geometry and tool design. It is recommended that mold shrinkage studies be performed with surrogate or legacy tooling prior to cutting tools for new molded article.
- (4) Injection Molding parameters are only mentioned as general guidelines. These may not apply or may need adjustment in specific situations such as low shot sizes, large part molding, thin wall molding and gas-assist molding.

## MORE INFORMATION

For curve data and CAE cards, please visit and register at <https://materialfinder.sabic-specialties.com>

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