

## LNP\* Colorcomp\* Compound D10009

Americas: COMMERCIAL

Also known as: D-1000 FR  
Product Reorder Name: D10009

LNP\* Colorcomp\* D10009 is a compound based on Polycarbonate resin containing Flame Retardant, Unfilled Custom Color. Added features of this material include: Flame Retardant.

### Property

TYPICAL PROPERTIES <sup>(1)</sup>			
MECHANICAL	Value	Unit	Standard
Tensile Stress, yield	58	MPa	ASTM D 638
Tensile Stress, break	48	MPa	ASTM D 638
Tensile Strain, yield	5.8	%	ASTM D 638
Tensile Strain, break	48.5	%	ASTM D 638
Tensile Modulus, 50 mm/min	2060	MPa	ASTM D 638
Flexural Modulus	2060	MPa	ASTM D 790
Tensile Stress, yield	58	MPa	ISO 527
Tensile Stress, break	51	MPa	ISO 527
Tensile Strain, yield	5.7	%	ISO 527
Tensile Strain, break	90.6	%	ISO 527
Tensile Modulus, 1 mm/min	2160	MPa	ISO 527
Flexural Stress	73	MPa	ISO 178
Flexural Modulus	2100	MPa	ISO 178
IMPACT	Value	Unit	Standard
Izod Impact, unnotched, 23°C	2114	J/m	ASTM D 4812
Izod Impact, notched, 23°C	154	J/m	ASTM D 256
Instrumented Impact Energy @ peak, 23°C	54	J	ASTM D 3763
Multiaxial Impact	37	J	ISO 6603
Izod Impact, unnotched 80*10*4 +23°C	191	kJ/m <sup>2</sup>	ISO 180/1U
Izod Impact, notched 80*10*4 +23°C	15	kJ/m <sup>2</sup>	ISO 180/1A
THERMAL	Value	Unit	Standard
HDT, 0.45 MPa, 3.2 mm, unannealed	137	°C	ASTM D 648
HDT, 1.82 MPa, 3.2mm, unannealed	126	°C	ASTM D 648
CTE, -40°C to 40°C, flow	7.02E-05	1/°C	ASTM E 831
CTE, -40°C to 40°C, xflow	7.2E-05	1/°C	ASTM E 831
CTE, -40°C to 40°C, flow	7.E-05	1/°C	ISO 11359-2
CTE, -40°C to 40°C, xflow	7.2E-05	1/°C	ISO 11359-2
HDT/Bf, 0.45 MPa Flatw 80*10*4 sp=64mm	136	°C	ISO 75/Bf
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	120	°C	ISO 75/Af
PHYSICAL	Value	Unit	Standard
Density	1.21	g/cm <sup>3</sup>	ASTM D 792
Moisture Absorption, 50% RH, 24 hrs	0.1	%	ASTM D 570
Mold Shrinkage, flow, 24 hrs	0.7 - 0.9	%	ASTM D 955
Mold Shrinkage, xflow, 24 hrs	0.7 - 0.9	%	ASTM D 955
Mold Shrinkage, flow, 24 hrs	0.78	%	ISO 294
Mold Shrinkage, xflow, 24 hrs	0.83	%	ISO 294

Density	1.21	g/cm <sup>3</sup>	ISO 1183
FLAME CHARACTERISTICS	Value	Unit	Standard
UL Compliant, 94V-0 Flame Class Rating (3)(4)	1.5	mm	UL 94 by GE

Source GMD, last updated:09/26/2008

## Processing

Parameter	Value	Unit
Injection Molding		
Drying Temperature	120	°C
Drying Time	4	hrs
Maximum Moisture Content	0.02	%
Melt Temperature	300 - 315	°C
Front - Zone 3 Temperature	310 - 320	°C
Middle - Zone 2 Temperature	305 - 315	°C
Rear - Zone 1 Temperature	295 - 305	°C
Mold Temperature	80 - 110	°C
Back Pressure	0.2 - 0.3	MPa
Screw Speed	30 - 60	rpm

Source GMD, last updated:09/26/2008

THESE PROPERTY VALUES ARE NOT INTENDED FOR SPECIFICATION PURPOSES.

PLEASE CHECK WITH YOUR [\(LOCAL SALES OFFICE\)](#) FOR AVAILABILITY IN YOUR REGION

(1) Typical values only. Variations within normal tolerances are possible for various colors. All values are measured after at least 48 hours storage at 23°C/50% relative humidity. All properties, except the melt volume and melt flow rates, are measured on injection molded samples. All samples tested under ISO test standards are prepared according to ISO 294.

(2) Only typical data for selection purposes. Not to be used for part or tool design.

(3) This rating is not intended to reflect hazards presented by this or any other material under actual fire conditions.

(4) Internal measurements according to UL standards.

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