

**Americas: COMMERCIAL** 

## LNP\* Stat-kon\* Compound DE0021E

Also known as: DC-1002 EM FR ECO Product Reorder Name: DE0021E

LNP STAT-KON\* DE0021E is a compound based on Polycarbonate resin containing Carbon Fiber, Flame Retardant. Added features of this material include: Easy Molding.

## **Property**

TYPICAL PROPERTIES (1)			
MECHANICAL	Value	Unit	Standard
Tensile Stress, break	114	MPa	ASTM D 638
Tensile Strain, break	1.8	%	ASTM D 638
Tensile Modulus, 50 mm/min	9160	MPa	ASTM D 638
Flexural Stress	170	MPa	ASTM D 790
Flexural Modulus	8210	MPa	ASTM D 790
Tensile Stress, break	112	MPa	ISO 527
Tensile Strain, break	2.1	%	ISO 527
Tensile Modulus, 1 mm/min	9360	MPa	ISO 527
Flexural Stress	169	MPa	ISO 178
Flexural Modulus	8500	MPa	ISO 178
IMPACT	Value	Unit	Standard
Izod Impact, unnotched, 23°C	347	J/m	ASTM D 4812
Izod Impact, notched, 23°C	37	J/m	ASTM D 256
Instrumented Impact Energy @ peak, 23°C	9	J	ASTM D 3763
Multiaxial Impact	7	J	ISO 6603
Izod Impact, unnotched 80*10*4 +23°C	31	kJ/m²	ISO 180/1U
Izod Impact, notched 80*10*4 +23°C	7	kJ/m²	ISO 180/1A
THERMAL	Value	Unit	Standard
HDT, 1.82 MPa, 3.2mm, unannealed	93	°C	ASTM D 648
CTE, -40°C to 40°C, flow	1.67E-05	1/°C	ASTM E 831
			ACTM F 024
CTE, -40°C to 40°C, xflow	6.08E-05	1/°C	ASTM E 831
CTE, -40°C to 40°C, xflow CTE, -40°C to 40°C, flow	6.08E-05 1.67E-05	1/°C 1/°C	ISO 11359-2
CTE, -40°C to 40°C, flow	1.67E-05	1/°C	ISO 11359-2
CTE, -40°C to 40°C, flow CTE, -40°C to 40°C, xflow	1.67E-05 6.09E-05	1/°C 1/°C	ISO 11359-2 ISO 11359-2
CTE, -40°C to 40°C, flow CTE, -40°C to 40°C, xflow HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	1.67E-05 6.09E-05 96	1/°C 1/°C °C	ISO 11359-2 ISO 11359-2 ISO 75/Af
CTE, -40°C to 40°C, flow CTE, -40°C to 40°C, xflow HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm PHYSICAL	1.67E-05 6.09E-05 96 <b>Value</b>	1/°C 1/°C °C <b>Unit</b>	ISO 11359-2 ISO 11359-2 ISO 75/Af <b>Standard</b>
CTE, -40°C to 40°C, flow CTE, -40°C to 40°C, xflow HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm PHYSICAL Density	1.67E-05 6.09E-05 96 <b>Value</b> 1.27	1/°C 1/°C °C <b>Unit</b> g/cm³	ISO 11359-2 ISO 11359-2 ISO 75/Af <b>Standard</b> ASTM D 792
CTE, -40°C to 40°C, flow CTE, -40°C to 40°C, xflow HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm  PHYSICAL  Density  Mold Shrinkage, flow, 24 hrs	1.67E-05 6.09E-05 96 <b>Value</b> 1.27 0.1 - 0.3	1/°C 1/°C °C <b>Unit</b> g/cm³	ISO 11359-2 ISO 11359-2 ISO 75/Af <b>Standard</b> ASTM D 792 ASTM D 955
CTE, -40°C to 40°C, flow CTE, -40°C to 40°C, xflow HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm  PHYSICAL  Density  Mold Shrinkage, flow, 24 hrs  Mold Shrinkage, xflow, 24 hrs	1.67E-05 6.09E-05 96 <b>Value</b> 1.27 0.1 - 0.3 0.2 - 0.4	1/°C 1/°C °C <b>Unit</b> g/cm³ %	ISO 11359-2 ISO 11359-2 ISO 75/Af <b>Standard</b> ASTM D 792 ASTM D 955 ASTM D 955
CTE, -40°C to 40°C, flow CTE, -40°C to 40°C, xflow HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm  PHYSICAL  Density  Mold Shrinkage, flow, 24 hrs  Mold Shrinkage, xflow, 24 hrs  Mold Shrinkage, flow, 24 hrs	1.67E-05 6.09E-05 96 <b>Value</b> 1.27 0.1 - 0.3 0.2 - 0.4 0.06 - 0.32	1/°C 1/°C °C <b>Unit</b> g/cm³ % %	ISO 11359-2 ISO 11359-2 ISO 75/Af Standard ASTM D 792 ASTM D 955 ASTM D 955 ISO 294
CTE, -40°C to 40°C, flow CTE, -40°C to 40°C, xflow HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm  PHYSICAL  Density  Mold Shrinkage, flow, 24 hrs  Mold Shrinkage, xflow, 24 hrs  Mold Shrinkage, flow, 24 hrs  Mold Shrinkage, xflow, 24 hrs  Mold Shrinkage, xflow, 24 hrs	1.67E-05 6.09E-05 96 <b>Value</b> 1.27 0.1 - 0.3 0.2 - 0.4 0.06 - 0.32 0.29 - 0.43	1/°C 1/°C °C Unit g/cm³ % % %	ISO 11359-2 ISO 11359-2 ISO 75/Af  Standard ASTM D 792 ASTM D 955 ASTM D 955 ISO 294 ISO 294
CTE, -40°C to 40°C, flow CTE, -40°C to 40°C, xflow HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm  PHYSICAL  Density  Mold Shrinkage, flow, 24 hrs  Mold Shrinkage, xflow, 24 hrs  Density	1.67E-05 6.09E-05 96 <b>Value</b> 1.27 0.1 - 0.3 0.2 - 0.4 0.06 - 0.32 0.29 - 0.43 1.27	1/°C 1/°C °C Unit g/cm³ % % % % g/cm³	ISO 11359-2 ISO 11359-2 ISO 75/Af  Standard ASTM D 792 ASTM D 955 ASTM D 955 ISO 294 ISO 294 ISO 1183 ISO 62 Standard
CTE, -40°C to 40°C, flow CTE, -40°C to 40°C, xflow HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm  PHYSICAL  Density  Mold Shrinkage, flow, 24 hrs  Mold Shrinkage, xflow, 24 hrs  Density  Moisture Absorption (23°C / 50% RH)  ELECTRICAL  Surface Resistivity	1.67E-05 6.09E-05 96 <b>Value</b> 1.27 0.1 - 0.3 0.2 - 0.4 0.06 - 0.32 0.29 - 0.43 1.27 0.1 <b>Value</b> 1.E+02 - 1.E+06	1/°C 1/°C °C Unit g/cm³ % % % % g/cm³ %	ISO 11359-2 ISO 11359-2 ISO 75/Af  Standard  ASTM D 792  ASTM D 955  ASTM D 955 ISO 294 ISO 294 ISO 1183 ISO 62  Standard  ASTM D 257
CTE, -40°C to 40°C, flow CTE, -40°C to 40°C, xflow HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm  PHYSICAL  Density  Mold Shrinkage, flow, 24 hrs  Mold Shrinkage, xflow, 24 hrs  Mold Shrinkage, flow, 24 hrs  Mold Shrinkage, flow, 24 hrs  Mold Shrinkage, xflow, 24 hrs  Density  Moisture Absorption (23°C / 50% RH)  ELECTRICAL	1.67E-05 6.09E-05 96 <b>Value</b> 1.27 0.1 - 0.3 0.2 - 0.4 0.06 - 0.32 0.29 - 0.43 1.27 0.1 <b>Value</b>	1/°C 1/°C °C Unit g/cm³ % % % g/cm³ % g/cm³ %	ISO 11359-2 ISO 11359-2 ISO 75/Af  Standard ASTM D 792 ASTM D 955 ASTM D 955 ISO 294 ISO 294 ISO 1183 ISO 62 Standard

## **Processing**

Parameter		
Injection Molding	Value	Unit
Drying Temperature	80	°C
Drying Time	4 - 6	hrs
Maximum Moisture Content	0.02	%
Melt Temperature	255 - 290	°C
Front - Zone 3 Temperature	260 - 270	°C
Middle - Zone 2 Temperature	255 - 265	°C
Rear - Zone 1 Temperature	250 - 260	°C
Mold Temperature	40 - 65	°C
Back Pressure	0.2 - 0.3	MPa
Screw Speed	30 - 60	rpm

Source GMD, last updated:09/30/2004

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.

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- (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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