

LNP* Stat-kon* Compound QEL329

Americas: COMMERCIAL

Also known as: QCL-4032 FR-1
Product Reorder Name: QEL329

LNP STAT-KON* QEL329 is a compound based on Nylon 6/10 resin containing Carbon Fiber, Flame Retardant, PTFE. Added features of this material include: Electrically Conductive.

Property

TYPICAL PROPERTIES ⁽¹⁾			
MECHANICAL	Value	Unit	Standard
Tensile Stress, break	117	MPa	ASTM D 638
Tensile Strain, break	2.5	%	ASTM D 638
Tensile Modulus, 50 mm/min	8820	MPa	ASTM D 638
Flexural Stress	171	MPa	ASTM D 790
Flexural Modulus	5990	MPa	ASTM D 790
Tensile Stress, break	126	MPa	ISO 527
Tensile Strain, break	2.4	%	ISO 527
Tensile Modulus, 1 mm/min	9580	MPa	ISO 527
Flexural Stress	185	MPa	ISO 178
Flexural Modulus	7010	MPa	ISO 178
IMPACT	Value	Unit	Standard
Izod Impact, unnotched, 23°C	379	J/m	ASTM D 4812
Izod Impact, notched, 23°C	37	J/m	ASTM D 256
Instrumented Impact Energy @ peak, 23°C	8	J	ASTM D 3763
Multiaxial Impact	9	J	ISO 6603
Izod Impact, unnotched 80*10*4 +23°C	29	kJ/m ²	ISO 180/1U
Izod Impact, notched 80*10*4 +23°C	4	kJ/m ²	ISO 180/1A
THERMAL	Value	Unit	Standard
HDT, 1.82 MPa, 3.2mm, unannealed	164	°C	ASTM D 648
CTE, -40°C to 40°C, flow	1.8E-05	1/°C	ASTM E 831
CTE, -40°C to 40°C, xflow	9.36E-05	1/°C	ASTM E 831
CTE, -40°C to 40°C, flow	1.81E-05	1/°C	ISO 11359-2
CTE, -40°C to 40°C, xflow	9.47E-05	1/°C	ISO 11359-2
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	193	°C	ISO 75/Af
PHYSICAL	Value	Unit	Standard
Density	1.44	g/cm ³	ASTM D 792
Moisture Absorption, 50% RH, 24 hrs	0.13	%	ASTM D 570
Mold Shrinkage, flow, 24 hrs	0.2 - 0.4	%	ASTM D 955
Mold Shrinkage, xflow, 24 hrs	0.7 - 0.9	%	ASTM D 955
Mold Shrinkage, flow, 24 hrs	0.2 - 0.4	%	ISO 294
Mold Shrinkage, xflow, 24 hrs	0.7 - 0.8	%	ISO 294
Wear Factor Washer	63	10 ⁻¹⁰ in ⁵ -min/ft-lb-hr	ASTM D 3702 Modified
Dynamic COF	0.47	-	ASTM D 3702 Modified
Static COF	0.37	-	ASTM D 3702 Modified
Density	1.44	g/cm ³	ISO 1183
Moisture Absorption (23°C / 50% RH)	0.13	%	ISO 62

ELECTRICAL	Value	Unit	Standard
Volume Resistivity	1.E+03 - 1.E+05	Ohm-cm	ASTM D 257
Surface Resistivity	1.E+03 - 1.E+05	Ohm	ASTM D 257
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:10/01/2004

Processing

Parameter	Value	Unit
Injection Molding		
Drying Temperature	80	°C
Drying Time	4	hrs
Maximum Moisture Content	0.12 - 0.2	%
Melt Temperature	270 - 275	°C
Front - Zone 3 Temperature	270 - 280	°C
Middle - Zone 2 Temperature	260 - 270	°C
Rear - Zone 1 Temperature	250 - 260	°C
Mold Temperature	80 - 95	°C
Back Pressure	0.2 - 0.3	MPa
Screw Speed	30 - 60	rpm

Source GMD, last updated:10/01/2004

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.

(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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