

LNPT[™] STAT-KON[™] COMPOUND JK800

DESCRIPTION

LNP STAT-KON JK800 compound is based on Polycarbonate/Acrylonitrile Butadiene Styrene (PC/ABS) blend containing 8% carbon fiber. Added features of this grade include: Electrically Conductive, Good Hydrolytic Stability, Non-Brominated, Non-Chlorinated Flame Retardant.

GENERAL INFORMATION

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

INDUSTRY

Electrical and Electronics
Industrial

SUB INDUSTRY

Electronic Components
Material Handling

TYPICAL PROPERTY VALUES

Revision 20230607

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
MECHANICAL ⁽¹⁾			
Tensile Stress, yld, Type I, 5 mm/min	96	MPa	ASTM D638
Tensile Stress, brk, Type I, 5 mm/min	96	MPa	ASTM D638
Tensile Strain, yld, Type I, 5 mm/min	1.9	%	ASTM D638
Tensile Strain, brk, Type I, 5 mm/min	1.9	%	ASTM D638
Tensile Modulus, 5 mm/min	7580	MPa	ASTM D638
Flexural Stress, brk, 1.3 mm/min, 50 mm span	144	MPa	ASTM D790
Flexural Modulus, 1.3 mm/min, 50 mm span	6200	MPa	ASTM D790
Tensile Stress, yield, 5 mm/min	95	MPa	ISO 527
Tensile Stress, break, 5 mm/min	95	MPa	ISO 527
Tensile Strain, yield, 5 mm/min	1.9	%	ISO 527
Tensile Strain, break, 5 mm/min	1.9	%	ISO 527
Tensile Modulus, 1 mm/min	7500	MPa	ISO 527
Flexural Stress, yield, 2 mm/min	145	MPa	ISO 178
Flexural Stress, break, 2 mm/min	145	MPa	ISO 178
Flexural Modulus, 2 mm/min	6380	MPa	ISO 178
IMPACT ⁽¹⁾			
Izod Impact, unnotched, 23°C	347	J/m	ASTM D4812
Izod Impact, notched, 23°C	37	J/m	ASTM D256
Instrumented Dart Impact Total Energy, 23°C	82	J	ASTM D3763
Izod Impact, unnotched 80°10°4 +23°C	21	kJ/m ²	ISO 180/1U
Izod Impact, notched 80°10°4 +23°C	4	kJ/m ²	ISO 180/1A
THERMAL ⁽¹⁾			

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
Vicat Softening Temp, Rate B/50	111	°C	ASTM D1525
HDT, 0.45 MPa, 3.2 mm, unannealed	97	°C	ASTM D648
HDT, 1.82 MPa, 3.2mm, unannealed	92	°C	ASTM D648
HDT, 1.82 MPa, 6.4 mm, unannealed	94	°C	ASTM D648
CTE, -40°C to 40°C, flow	2.52E-05	1/°C	ASTM E831
CTE, -40°C to 40°C, xflow	6.48E-05	1/°C	ASTM E831
CTE, 23°C to 80°C, flow	2.6E-05	1/°C	ISO 11359-2
CTE, 23°C to 80°C, xflow	7.4E-05	1/°C	ISO 11359-2
Vicat Softening Temp, Rate B/120	101	°C	ISO 306
Relative Temp Index, Elec ⁽²⁾	60	°C	UL 746B
Relative Temp Index, Mech w/impact ⁽²⁾	60	°C	UL 746B
Relative Temp Index, Mech w/o impact ⁽²⁾	60	°C	UL 746B
PHYSICAL ⁽¹⁾			
Specific Gravity	1.25	-	ASTM D792
Mold Shrinkage, flow, 3.2 mm ⁽³⁾	0.1 – 0.2	%	SABIC method
Mold Shrinkage, xflow, 3.2 mm ⁽³⁾	0.2 – 0.4	%	SABIC method
Melt Flow Rate, 260°C/2.16 kgf ⁽³⁾	17	g/10 min	ASTM D1238
ELECTRICAL ⁽¹⁾			
Volume Resistivity ⁽⁴⁾	1.E+03	Ω.cm	ASTM D257
Surface Resistivity ⁽⁴⁾	1.E+06	Ω	ASTM D257
Static Decay, 5000V to <50V	<0.01	Seconds	FTMS101B
Hot-Wire Ignition (HWI), PLC 0	≥1	mm	UL 746A
High Amp Arc Ignition (HAI), PLC 0	≥1	mm	UL 746A
FLAME CHARACTERISTICS ⁽²⁾			
UL Yellow Card Link	<u>E121562-221061</u>	-	-
UL Yellow Card Link 2	<u>E207780-101632098</u>	-	-
UL Recognized, 94V-0 Flame Class Rating	≥1	mm	UL 94
UL Recognized, 94-5VB Flame Class Rating	≥1.5	mm	UL 94
Glow Wire Ignitability Temperature, 1.5 mm	800	°C	IEC 60695-2-13
Glow Wire Flammability Index, 1.5 mm	960	°C	IEC 60695-2-12
INJECTION MOLDING ⁽⁵⁾			
Drying Temperature	75 – 80	°C	
Drying Time	3 – 4	Hrs	
Drying Time (Cumulative)	8	Hrs	
Maximum Moisture Content	0.04	%	
Melt Temperature	230 – 275	°C	
Nozzle Temperature	230 – 275	°C	
Front - Zone 3 Temperature	225 – 275	°C	
Middle - Zone 2 Temperature	215 – 260	°C	
Rear - Zone 1 Temperature	210 – 255	°C	
Mold Temperature	50 – 70	°C	
Back Pressure	0.3 – 0.7	MPa	
Screw Speed	40 – 70	rpm	
Shot to Cylinder Size	30 – 80	%	
Vent Depth	0.038 – 0.076	mm	

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- (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) Measurement meets requirements as specified in ASTM D4496.
- (5) 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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