LNP™ STAT-KON™ Compound 5E003M

FP-VC-1003 M

DESCRIPTION

LNP STAT-KON 5E003M compound is based on Polyvinylidene Fluoride (PVDF) resin containing 15% milled carbon fiber. Added features of this grade include: Electrically Conductive.

GENERAL INFORMATION	
Features	Electrically Conductive, Dimensional stability, High stiffness/Strength
Fillers	Milled Carbon Fiber
Polymer Types	Polyvinylidene Fluoride (PVDF)
Processing Techniques	Injection Molding

INDUSTRY	SUB INDUSTRY
Electrical and Electronics	Energy Management, Electronic Components
Industrial	Material Handling

TYPICAL PROPERTY VALUES

Revision 20260827

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
MECHANICAL [1]			
Tensile Stress, yld, Type I, 5 mm/min	50	MPa	ASTM D638
Tensile Stress, brk, Type I, 5 mm/min	47	MPa	ASTM D638
Tensile Strain, yld, Type I, 5 mm/min	3.5	%	ASTM D638
Tensile Strain, brk, Type I, 5 mm/min	6.8	%	ASTM D638
Tensile Modulus, 5 mm/min	9060	MPa	ASTM D638
Flexural Stress, yld, 1.3 mm/min, 50 mm span	79	MPa	ASTM D790
Flexural Modulus, 1.3 mm/min, 50 mm span	5470	MPa	ASTM D790
Tensile Stress, yield, 5 mm/min	49	MPa	ISO 527
Tensile Stress, break, 5 mm/min	46	MPa	ISO 527
Tensile Strain, yield, 5 mm/min	3.4	%	ISO 527
Tensile Strain, break, 5 mm/min	6.1	%	ISO 527
Tensile Modulus, 1 mm/min	7450	MPa	ISO 527
Flexural Stress	79	MPa	ISO 178
Flexural Modulus, 2 mm/min	6580	MPa	ISO 178
IMPACT [1]			
Izod Impact, unnotched, 23°C	432	J/m	ASTM D4812
Izod Impact, notched, 23°C	58	J/m	ASTM D256
Multiaxial Impact	3	J	ISO 6603
Instrumented Dart Impact Total Energy, 23°C	13	J	ASTM D3763
Izod Impact, unnotched 80*10*4 +23°C	26	kJ/m²	ISO 180/1U
Izod Impact, notched 80*10*4 +23°C	5	kJ/m²	ISO 180/1A
THERMAL [1]			

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PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
HDT, 0.45 MPa, 3.2 mm, unannealed	160	°C	ASTM D648
HDT, 1.82 MPa, 3.2mm, unannealed	136	°C	ASTM D648
CTE, -30°C to 30°C, flow	2.E-05	1/°C	ASTM D696
CTE, -30°C to 30°C, xflow	9.2E-05	1/°C	ASTM D696
HDT/Bf, 0.45 MPa Flatw 80*10*4 sp=64mm	150	°C	ISO 75/Bf
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	114	°C	ISO 75/Af
PHYSICAL (1)			
Specific Gravity	1.76	-	ASTM D792
Density	1.76	g/cm³	ASTM D792
Moisture Absorption, (23°C/50% RH/24 hrs)	0.04	%	ASTM D570
Mold Shrinkage, flow, 24 hrs (2)	1 – 3	%	ASTM D955
Mold Shrinkage, xflow, 24 hrs (2)	1 – 3	%	ASTM D955
Moisture Absorption (23°C / 50% RH)	0.05	%	ISO 62
ELECTRICAL			
Surface Resistivity (1)	10E-04 – 10E-05	Ω	ASTM D257
INJECTION MOLDING (3)			
Drying Temperature	120 – 150	°C	
Drying Time	4	Hrs	
Melt Temperature	215 – 230	°C	
Front - Zone 3 Temperature	225 – 245	°C	
Middle - Zone 2 Temperature	210 – 225	°C	
Rear - Zone 1 Temperature	190 – 210	°C	
Mold Temperature	65 – 90	°C	
Back Pressure	0.2 – 0.3	MPa	
Screw Speed	30 – 60	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) 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.

(3) 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.

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