

LNPTM STAT-KONTM COMPOUND DEP23FXC

DCL-4523 SM HP

DESCRIPTION

LNP STAT-KON DEP23FXC compound is based on Polycarbonate (PC) resin containing 15% carbon fiber, 10% PTFE/silicone. Added features of this grade include: Electrically Conductive. Wear Resistant, Superior Molding.

GENERAL INFORMATION

Features	Electrically Conductive, High Flow, Wear resistant, Carbon fiber filled, High stiffness/Strength
Fillers	Carbon Fiber, PTFE/Silicone
Polymer Types	Polycarbonate (PC)
Processing Techniques	Injection Molding

INDUSTRY

Electrical and Electronics
Industrial

SUB INDUSTRY

Electronic Components
Material Handling

TYPICAL PROPERTY VALUES

Revision 20231109

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
MECHANICAL ⁽¹⁾			
Tensile Stress, break	120	MPa	ASTM D638
Tensile Strain, break	2	%	ASTM D638
Tensile Modulus, 50 mm/min	10540	MPa	ASTM D638
Flexural Stress	186	MPa	ASTM D790
Flexural Modulus	9100	MPa	ASTM D790
Tensile Stress, break	122	MPa	ISO 527
Tensile Strain, break	1.8	%	ISO 527
Tensile Modulus, 1 mm/min	10200	MPa	ISO 527
Flexural Stress	186	MPa	ISO 178
Flexural Modulus	10300	MPa	ISO 178
IMPACT ⁽¹⁾			
Izod Impact, unnotched, 23°C	411	J/m	ASTM D4812
Izod Impact, notched, 23°C	64	J/m	ASTM D256
Instrumented Dart Impact Energy @ peak, 23°C	16	J	ASTM D3763
Multiaxial Impact	3	J	ISO 6603
Izod Impact, unnotched 80*10*4 +23°C	27	kJ/m ²	ISO 180/1U
Izod Impact, notched 80*10*4 +23°C	7	kJ/m ²	ISO 180/1A
THERMAL ⁽¹⁾			
HDT, 0.45 MPa, 3.2 mm, unannealed	141	°C	ASTM D648
HDT, 1.82 MPa, 3.2mm, unannealed	137	°C	ASTM D648
CTE, -40°C to 40°C, flow	3.33E-05	1/°C	ASTM E831
CTE, -40°C to 40°C, xflow	3.65E-05	1/°C	ASTM E831

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CHEMISTRY THAT MATTERS™

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
CTE, -40°C to 40°C, flow	3.33E-05	1 / °C	ISO 11359-2
CTE, -40°C to 40°C, xflow	3.65E-05	1 / °C	ISO 11359-2
HDT/Bf, 0.45 MPa Flatw 80*10*4 sp=64mm	141	°C	ISO 75 /Bf
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	137	°C	ISO 75 /Af
PHYSICAL ⁽¹⁾			
Density	1.29	g / cm ³	ASTM D792
Moisture Absorption, (23°C/50% RH/24 hrs)	0.12	%	ASTM D570
Mold Shrinkage, flow, 24 hrs ⁽²⁾	0.2	%	ASTM D955
Mold Shrinkage, xflow, 24 hrs ⁽²⁾	0.3	%	ASTM D955
Mold Shrinkage, flow, 24 hrs ⁽²⁾	0.16	%	ISO 294
Mold Shrinkage, xflow, 24 hrs ⁽²⁾	0.27	%	ISO 294
Density	1.28	g / cm ³	ISO 1183
ELECTRICAL ⁽¹⁾			
Surface Resistivity ⁽³⁾	1.E+01 – 1.E+06	Ω	ASTM D257
FLAME CHARACTERISTICS			
UL Compliant, 94HB Flame Class Rating ⁽⁴⁾	1.5	mm	UL 94 by SABIC-IP
INJECTION MOLDING ⁽⁵⁾			
Drying Temperature	120	°C	
Drying Time	4	Hrs	
Maximum Moisture Content	0.02	%	
Melt Temperature	305 – 325	°C	
Front - Zone 3 Temperature	320 – 330	°C	
Middle - Zone 2 Temperature	310 – 320	°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	

(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) Measurement meets requirements as specified in ASTM D4496.

(4) UL rating shown here is based on internal measurements.

(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.

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