

LNPT[™] STAT-KON[™] COMPOUND EEF42

ECF-1006

DESCRIPTION

LNP STAT-KON EEF42 compound is based on Polyetherimide (PEI) resin containing 10% carbon fiber, 20% glass fiber. Added features of this grade include: Electrically Conductive.

GENERAL INFORMATION

Features	Electrically Conductive, Carbon fiber filled, High stiffness/Strength, High temperature resistance
Fillers	Carbon Fiber, Glass Fiber
Polymer Types	Polyetherimide (PEI)
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, yield, 5 mm/min	179	MPa	ISO 527
Tensile Stress, break, 5 mm/min	179	MPa	ISO 527
Tensile Strain, yield, 5 mm/min	1.5	%	ISO 527
Tensile Strain, break, 5 mm/min	1.5	%	ISO 527
Tensile Modulus, 1 mm/min	13990	MPa	ISO 527
Flexural Modulus, 2 mm/min	13330	MPa	ISO 178
Tensile Stress, yld, Type I, 5 mm/min	191	MPa	ASTM D638
Tensile Stress, brk, Type I, 5 mm/min	183	MPa	ASTM D638
Tensile Strain, yld, Type I, 5 mm/min	1.7	%	ASTM D638
Tensile Strain, brk, Type I, 5 mm/min	1.7	%	ASTM D638
Tensile Modulus, 5 mm/min	14820	MPa	ASTM D638
Flexural Strength, 1.3 mm/min, 50 mm span	264	MPa	ASTM D790
Flexural Modulus, 1.3 mm/min, 50 mm span	13800	MPa	ASTM D790
IMPACT ⁽¹⁾			
Izod Impact, notched 80*10*4 +23°C	7	kJ/m ²	ISO 180/1A
Izod Impact, unnotched 80*10*4 +23°C	28	kJ/m ²	ISO 180/1U
Multiaxial Impact	3	J	ISO 6603
Izod Impact, notched, 23°C	70	J/m	ASTM D256
Izod Impact, unnotched, 23°C	1320	J/m	ASTM D4812
Instrumented Dart Impact Total Energy, 23°C	11	J	ASTM D3763
THERMAL ⁽¹⁾			
HDT/Bf, 0.45 MPa Flatw 80*10*4 sp=64mm	214	°C	ISO 75/Bf

© 2023 Copyright by SABIC. All rights reserved

CHEMISTRY THAT MATTERS[™]

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	210	°C	ISO 75 /Af
HDT, 0.45 MPa, 3.2 mm, unannealed	213	°C	ASTM D648
HDT, 1.82 MPa, 3.2mm, unannealed	210	°C	ASTM D648
CTE, -40°C to 40°C, flow	3.30E-05	1 / °C	ASTM E831
CTE, -40°C to 40°C, xflow	3.80E-05	1 / °C	ASTM E831
PHYSICAL ⁽¹⁾			
Moisture Absorption (23°C / 50% RH)	0.22	%	ISO 62
Density	1.46	g / cm ³	ASTM D792
Specific Gravity	1.48	-	ASTM D792
Moisture Absorption, (23°C/50% RH/24 hrs)	0.14	%	ASTM D570
Mold Shrinkage, flow, 24 hrs ⁽²⁾	0.1 – 0.3	%	ASTM D955
Mold Shrinkage, xflow, 24 hrs ⁽²⁾	0.3 – 0.5	%	ASTM D955
ELECTRICAL ⁽¹⁾			
Surface Resistivity ⁽³⁾	1.E+03 – 1.E+06	Ω	ASTM D257
INJECTION MOLDING ⁽⁴⁾			
Drying Temperature	150	°C	
Drying Time	4 – 6	Hrs	
Maximum Moisture Content	0.02	%	
Melt Temperature	360 – 400	°C	
Rear - Zone 1 Temperature	360 – 380	°C	
Middle - Zone 2 Temperature	370 – 390	°C	
Front - Zone 3 Temperature	380 – 400	°C	
Nozzle Temperature	390 – 400	°C	
Mold Temperature	140 – 180	°C	
Back Pressure	0.3 – 0.7	MPa	
Screw speed (Circumferential speed)	0.2 – 0.3	m / s	
Vent Depth	0.025 – 0.076	mm	

(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) 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.

DISCLAIMER

Any sale by SABIC, its subsidiaries and affiliates (each a "seller"), is made exclusively under seller's standard conditions of sale (available upon request) unless agreed otherwise in writing and signed on behalf of the seller. While the information contained herein is given in good faith, SELLER MAKES NO WARRANTY, EXPRESS OR IMPLIED, INCLUDING MERCHANTABILITY AND NON-INFRINGEMENT OF INTELLECTUAL PROPERTY, NOR ASSUMES ANY LIABILITY, DIRECT OR INDIRECT, WITH RESPECT TO THE PERFORMANCE, SUITABILITY OR FITNESS FOR INTENDED USE OR PURPOSE OF THESE PRODUCTS IN ANY APPLICATION. Each customer must determine the suitability of seller materials for the customer's particular use through appropriate testing and analysis. No statement by seller concerning a possible use of any product, service or design is intended, or should be construed, to grant any license under any patent or other intellectual property right.