LNP™ STAT-KON™ COMPOUND IS000XXL

IS000XXL

DESCRIPTION

LNP STAT-KON IS000XXL compound is based on Nylon 6/12 resin containing stainless steel fiber. Added features of this grade include: Food Contact Compliant, Metal Detectable, Electrically Conductive.

GENERAL INFORMATION	
Features	Electrically Conductive, Food contact, X-Ray and metal detection, No PFAS intentionally added
Fillers	Stainless Steel Fiber
Polymer Types	Polyamide 612 (Nylon 612)
Processing Techniques	Injection Molding

INDUSTRY	SUB INDUSTRY
Building and Construction	Water Management
Consumer	Home Appliances
Packaging	Industrial Packaging, Food & Beverage

TYPICAL PROPERTY VALUES

Revision 20241028

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
MECHANICAL [1]			
Tensile Stress, brk, Type I, 5 mm/min	67	MPa	ASTM D638
Tensile Strain, yld, Type I, 5 mm/min	9.3	%	ASTM D638
Tensile Strain, brk, Type I, 5 mm/min	10.2	%	ASTM D638
Tensile Modulus, 50 mm/min	3040	MPa	ASTM D638
Flexural Modulus, 1.3 mm/min, 50 mm span	2670	MPa	ASTM D790
Tensile Stress, break, 5 mm/min	66	MPa	ISO 527
Tensile Strain, break, 5 mm/min	8.5	%	ISO 527
Tensile Modulus, 1 mm/min	3070	MPa	ISO 527
Flexural Stress	82	MPa	ISO 178
Flexural Modulus, 2 mm/min	2430	MPa	ISO 178
IMPACT [1]			
Izod Impact, unnotched, 23°C	486	J/m	ASTM D4812
Izod Impact, notched, 23°C	27	J/m	ASTM D256
Instrumented Dart Impact Total Energy, 23°C	2	J	ASTM D3763
Izod Impact, unnotched 80*10*4 +23°C	35	kJ/m²	ISO 180/1U
Izod Impact, notched 80*10*4 +23°C	3	kJ/m²	ISO 180/1A
THERMAL [1]			
HDT, 0.45 MPa, 3.2 mm, unannealed	180	°C	ASTM D648
HDT, 1.82 MPa, 3.2mm, unannealed	92	°C	ASTM D648
CTE, -30°C to 30°C, flow	1.02E-04	1/°C	ASTM D696
CTE, -30°C to 30°C, xflow	1.19E-04	1/°C	ASTM D696

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
HDT/Bf, 0.45 MPa Flatw 80*10*4 sp=64mm	161	°C	ISO 75/Bf
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	72	°C	ISO 75/Af
PHYSICAL [1]			
Specific Gravity	1.18	-	ASTM D792
Density	1.18	g/cm³	ASTM D792
Moisture Absorption, (23°C/50% RH/24 hrs)	0.2	%	ASTM D570
Mold Shrinkage, flow, 24 hrs [2]	1 – 3	%	ASTM D955
Mold Shrinkage, xflow, 24 hrs [2]	2 – 4	%	ASTM D955
Moisture Absorption (23°C / 50% RH)	0.29	%	ISO 62
ELECTRICAL [1]			
Surface Resistivity [3]	1.E+02 – 1.E+06	Ω	ASTM D257
INJECTION MOLDING [4]			
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	255 – 265	°C	
Mold Temperature	65 – 95	°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) 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