LNP™ STAT-KON™ Compound WDF40RID

ER015739

DESCRIPTION

LNP STAT-KON WDF40RID compound is based on Polybutylene Terephthalate (PBT) resin based containing 20% glass fibers and proprietary fillers. Added features for this grade include: Electrically Conductive, Radar Absorbing, higher flowability, and better warpage control.

GENERAL INFORMATION	
Features	Electrically Conductive, High Flow, Low Warpage, Radar Absorption, Dimensional stability, No PFAS intentionally added
Fillers	Proprietary Filler, Glass Fiber (Total fluorine >50ppm only from inorganic fluorine)
Polymer Types	Polybutylene Terephthalate (PBT)
Processing Techniques	Injection Molding

INDUSTRY	SUB INDUSTRY
Automotive	Automotive Interiors
Electrical and Electronics	Electronic Components, Wireless Communication

TYPICAL PROPERTY VALUES

Revision 20260319

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
MECHANICAL [1]			
Tensile Stress, brk, Type I, 5 mm/min	100	MPa	ASTM D638
Tensile Strain, brk, Type I, 5 mm/min	2.2	%	ASTM D638
Tensile Modulus, 5 mm/min	7400	MPa	ASTM D638
Flexural Strength, 1.3 mm/min, 50 mm span	150	MPa	ASTM D790
Flexural Modulus, 1.3 mm/min, 50 mm span	6890	MPa	ASTM D790
Tensile Stress, break, 5 mm/min	100	MPa	ISO 527
Tensile Strain, break, 5 mm/min	2.2	%	ISO 527
Tensile Modulus, 1 mm/min	7940	MPa	ISO 527
Flexural Strength, 2 mm/min	140	MPa	ISO 178
Flexural Modulus, 2 mm/min	6500	MPa	ISO 178
IMPACT [1]			
Izod Impact, notched, 23°C	70	J/m	ASTM D256
Izod Impact, unnotched, 23°C	550	J/m	ASTM D4812
Izod Impact, notched, -30°C	65	J/m	ASTM D256
Izod Impact, notched 80*10*4 +23°C	6.5	kJ/m²	ISO 180/1A
Izod Impact, unnotched 80*10*4 +23°C	50	kJ/m²	ISO 180/1U
Charpy 23°C, V-notch Edgew 80*10*4 sp=62mm	7.5	kJ/m²	ISO 179/1eA
Charpy 23°C, Unnotch Edgew 80*10*4 sp=62mm	40	kJ/m²	ISO 179/1eU
Charpy -30°C, V-notch Edgew 80*10*4 sp=62mm	7	kJ/m²	ISO 179/1eA
Multi-Axial Instrumented Impact Energy @ peak, 23°C	5	J	ISO 6603-2
Multi-Axial Instrumented Impact Energy @ peak, -30°C	3	J	ISO 6603-2

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PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
THERMAL [1]			
HDT, 0.45 MPa, 3.2 mm, unannealed	216	°C	ASTM D648
HDT, 1.82 MPa, 3.2mm, unannealed	191	°C	ASTM D648
HDT/Bf, 0.45 MPa Flatw 80*10*4 sp=64mm	215	°C	ISO 75/Bf
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	190	°C	ISO 75/Af
CTE			
-40°C to 40°C, flow	3.0E-05	1/°C	ASTM E831
-40°C to 40°C, xflow	7.0E-05	1/°C	ASTM E831
-40°C to 40°C, flow	3.0E-05	1/°C	ISO 11359-2
-40°C to 40°C, xflow	7.0E-05	1/°C	ISO 11359-2
PHYSICAL [1]			
Specific Gravity	1.4	-	ASTM D792
Density	1.4	g/cm³	ISO 1183
Melt Volume Rate, MVR at 280°C/5.0 kg	15	cm³/10 min	ISO 1133
Mold Shrinkage, flow [2]	0.3 – 0.5	%	SABIC method
Mold Shrinkage, xflow [2]	0.8 – 1.0	%	SABIC method
ELECTRICAL [1]			
Surface Resistivity	1.E+05 – 1.E+06	Ω	ASTM D257
Volume Resistivity	1.E+05 – 1.E+06	Ω.cm	ASTM D257
Dielectric Constant			
77 GHz	9	-	SABIC method
Dissipation Factor			
77 GHz	0.4	-	SABIC method
INJECTION MOLDING [3]			
Drying Temperature	120	°C	
Drying Time	4	Hrs	
Melt Temperature	260 – 290	°C	
Nozzle Temperature	265 – 295	°C	
Front - Zone 3 Temperature	260 – 290	°C	
Middle - Zone 2 Temperature	260 – 290	°C	
Rear - Zone 1 Temperature	250 – 280	°C	
Mold Temperature	50 – 110	°C	

(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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