

LNPTM THERMOTUFTM COMPOUND RBX7245

DESCRIPTION

LNP THERMOTUF RBX7245 compound is based on Polycarbonate (PC) resin with 50% post-consumer recycle (PCR) content. Added features of this grade include: Non-Brominated & Non-Chlorinated Flame Retardant with excellent V-0 rating at 0.6mm.

GENERAL INFORMATION	
Features	Flame Retardant, Sustainable (Mechanical Recycling), Non Cl/Br flame retardant
Fillers	Unreinforced
Polymer Types	Polycarbonate (PC)
Processing Techniques	Injection Molding

INDUSTRY	SUB INDUSTRY
Building and Construction	Building Component
Consumer	Sport/Leisure, Personal Accessory, Home Appliances, Commercial Appliance
Electrical and Electronics	Mobile Phone - Computer - Tablets
Industrial	Electrical

TYPICAL PROPERTY VALUES

PROPERTIES TYPICAL VALUES UNITS **TEST METHODS** MECHANICAL⁽¹⁾ Tensile Stress, yld, Type I, 50 mm/min 63 MPa ASTM D638 Tensile Stress, brk, Type I, 50 mm/min 46 MPa ASTM D638 4 Tensile Strain, yld, Type I, 50 mm/min % ASTM D638 75 % ASTM D638 Tensile Strain, brk, Type I, 50 mm/min Tensile Modulus, 5 mm/min 2500 MPa ASTM D638 ASTM D790 Flexural Stress, yld, 1.3 mm/min, 50 mm span 102 MPa Flexural Modulus, 1.3 mm/min, 50 mm span 2400 MPa ASTM D790 Tensile Stress, yield, 50 mm/min 63 MPa ISO 527 Tensile Stress, break, 50 mm/min 44 MPa ISO 527 Tensile Strain, yield, 50 mm/min 4 % ISO 527 Tensile Strain, break, 50 mm/min 64 % ISO 527 Tensile Modulus, 1 mm/min 2400 MPa ISO 527 Flexural Stress, yield, 2 mm/min ISO 178 92 MPa Flexural Stress, break, 2 mm/min 90 MPa ISO 178 Flexural Modulus, 2 mm/min 2500 ISO 178 MPa IMPACT (1) Izod Impact, notched, 23°C 700 ASTM D256 J/m Izod Impact, notched, 0°C 310 J/m ASTM D256 Izod Impact, notched, -30°C 91 ASTM D256 J/m 51 Charpy Impact, notched, 23°C, 80*10*4mm, Cut kJ/m² ISO 179/1eA Charpy Impact, notched, 0°C, 80*10*4mm, Cut 9 kJ/m² ISO 179/1eA

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CHEMISTRY THAT MATTERS

Revision 20230607



PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
Charpy Impact, notched, -30°C, 80*10*4mm, Cut	7	kJ/m²	ISO 179/1eA
THERMAL ⁽¹⁾			
HDT, 0.45 MPa, 3.2 mm, unannealed	101	°C	ASTM D648
HDT, 1.82 MPa, 3.2mm, unannealed	92	°C	ASTM D648
CTE, -40°C to 90°C, flow	6.0E-05	1/°C	ASTM E831
CTE, -40°C to 90°C, xflow	7.1E-05	1/°C	ASTM E831
CTE, -40°C to 90°C, flow	6.3E-05	1/°C	ISO 11359-2
CTE, -40°C to 90°C, xflow	7.1E-05	1/°C	ISO 11359-2
Vicat Softening Temp, Rate B/50	110	°C	ISO 306
Vicat Softening Temp, Rate B/120	116	°C	ISO 306
Relative Temp Index, Elec	80	°C	UL 746B
Relative Temp Index, Mech w/impact	80	°C	UL 746B
Relative Temp Index, Mech w/o impact	80	°C	UL 746B
PHYSICAL ⁽¹⁾			
Specific Gravity	1.2	-	ASTM D792
Mold Shrinkage, flow, 3.2 mm ⁽²⁾	0.3 - 0.4	%	SABIC method
Mold Shrinkage, xflow, 3.2 mm ⁽²⁾	0.4 – 0.5	%	SABIC method
Melt Flow Rate, 260°C/2.16 kgf	18	g/10 min	ASTM D1238
Water Absorption, (23°C/saturated)	0.1	%	ISO 62-1
Moisture Absorption (23°C / 50% RH)	0.05	%	ISO 62
Melt Volume Rate, MVR at 260°C/2.16 kg	18	cm³/10 min	ISO 1133
Melt Volume Rate, MVR at 300°C/1.2 kg	29	cm³/10 min	ISO 1133
FLAME CHARACTERISTICS ⁽³⁾			
UL Yellow Card Link	E207780-103823841	-	
UL Recognized, 94V-2 Flame Class Rating	≥0.25	mm	UL 94
UL Recognized, 94V-0 Flame Class Rating	≥0.6	mm	UL 94
INJECTION MOLDING (4)			
Drying Temperature	80 – 90	°C	
Drying Time	2 - 4	Hrs	
Maximum Moisture Content	0.02	%	
Melt Temperature	250 – 300	°C	
Nozzle Temperature	250 – 300	°C	
Front - Zone 3 Temperature	250 – 300	°C	
Middle - Zone 2 Temperature	240 – 290	°C	
Rear - Zone 1 Temperature	230 – 280	°C	
Hopper Temperature	60 - 80	°C	
Mold Temperature	60 - 85	°C	
Vent Depth	0.03 - 0.075	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) UL Ratings shown on the technical datasheet might not cover the full range of thicknesses and colors. For details, please see the UL Yellow Card.

(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.



MORE INFORMATION

For curve data and CAE cards, please visit and register at https://materialfinder.sabic-specialties.com

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