LNP™ THERMOCOMP™ COMPOUND D351RCC

DESCRIPTION

LNP™ THERMOCOMP™ D351RCC is a compound based on Post-Consumer Recycling (PCR) Polycarbonate resin containing Glass Fiber, Flame Retardant. Added features of this material include: colorable, high modulus, good flatness, good ductility, Non-Brominated & Non-Chlorinated Flame Retardant. PCR polycarbonate content up to 40%.

TYPICAL PROPERTY VALUES

Revision 20191216

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
MECHANICAL			
Flexural Stress, yld, 1.3 mm/min, 50 mm span	195	MPa	ASTM D 790
Flexural Stress, brk, 1.3 mm/min, 50 mm span	190	MPa	ASTM D 790
Flexural Modulus, 1.3 mm/min, 50 mm span	8550	MPa	ASTM D 790
Tensile Stress, brk, Type I, 5 mm/min	130	MPa	ASTM D 638
Tensile Strain, brk, Type I, 5 mm/min	2.4	%	ASTM D 638
Tensile Modulus, 5 mm/min	9210	MPa	ASTM D 638
Flexural Stress, yield, 2 mm/min	183	MPa	ISO 178
Flexural Stress, break, 2 mm/min	181	MPa	ISO 178
Flexural Modulus, 2 mm/min	7810	MPa	ISO 178
Tensile Stress, break, 5 mm/min	127	MPa	ISO 527
Tensile Strain, break, 5 mm/min	2.7	%	ISO 527
Tensile Modulus, 1 mm/min	9400	MPa	ISO 527
IMPACT			
Izod Impact, notched, 23°C	130	J/m	ASTM D 256
Izod Impact, unnotched, 23°C	465	J/m	ASTM D 4812
Izod Impact, notched 80*10*4 +23°C	13	kJ/m²	ISO 180/1A
Izod Impact, unnotched 80*10*4 +23°C	31	kJ/m²	ISO 180/1U
THERMAL			
HDT, 1.82 MPa, 3.2mm, unannealed	113	°C	ASTM D 648
HDT, 0.45 MPa, 3.2 mm, unannealed	118	°C	ASTM D 648
Vicat Softening Temp, Rate B/50	122	°C	ISO 306
Vicat Softening Temp, Rate B/120	126	°C	ISO 306
CTE, -40°C to 40°C, flow	2.0E-05	1/°C	ASTM E 831
CTE, -40°C to 40°C, xflow	6.8E-05	1/°C	ASTM E 831
Relative Temp Index, Elec [1]	80	°C	UL 746B
Relative Temp Index, Mech w/impact [1]	80	°C	UL 746B
Relative Temp Index, Mech w/o impact [1]	80	°C	UL 746B
PHYSICAL			
Density	1.425	g/cm³	ASTM D 792
Melt Flow Rate, 300°C/2.16 kgf	36	g/10 min	ASTM D 1238
Melt Flow Rate, 300°C/1.2 kgf	19	g/10 min	ASTM D 1238
Melt Volume Rate, MVR at 300°C/2.16 kg	31	cm³/10 min	ISO 1133
Mold Shrinkage, xflow, 24 hrs	0.1 – 0.3	%	ASTM D 955
Mold Shrinkage, flow, 24 hrs	0.1 – 0.3	%	ASTM D 955

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FLAME CHARACTERISTICS [1]			
UL Yellow Card Link	E207780-104051537	-	-
UL Recognized, 94V-0 Flame Class Rating	≥0.8	mm	UL 94
INJECTION MOLDING			
Drying Temperature	110	°C	
Drying Time	3 – 6	hrs	
Maximum Moisture Content	0.02	%	
Melt Temperature	285 – 310	°C	
Nozzle Temperature	285 – 305	°C	
Front - Zone 3 Temperature	280 – 300	°C	
Middle - Zone 2 Temperature	270 – 290	°C	
Rear - Zone 1 Temperature	260 – 280	°C	
Mold Temperature	80 – 110	°C	
Back Pressure	0.1 – 0.3	MPa	
Screw Speed	50 – 90	rpm	

(1) 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.

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