LNP™ THERMOCOMP™ COMPOUND D251U

REGION ASIA

DESCRIPTION

LNP™ THERMOCOMP™ D251U is a compound based on Polycarbonate resin containing Glass Fiber, Flame Retardant. Added features of this material include: Thin wall non-Brominated & non-Chlorinated flame retardant, good surface quality, good warpage control, good flow-ability, comparable impact and good UV stability

INDUSTRY	SUB INDUSTRY
Consumer	Personal Accessory
Electrical and Electronics	Electrical Devices and Displays

TYPICAL PROPERTY VALUES

Revision 20191009

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
MECHANICAL			
Tensile Stress, brk, Type I, 5 mm/min	110	MPa	ASTM D 638
Tensile Strain, brk, Type I, 5 mm/min	2.7	%	ASTM D 638
Tensile Modulus, 5 mm/min	6700	MPa	ASTM D 638
Flexural Stress, brk, 1.3 mm/min, 50 mm span	167	MPa	ASTM D 790
Flexural Modulus, 1.3 mm/min, 50 mm span	6200	MPa	ASTM D 790
Tensile Stress, break, 5 mm/min	112	MPa	ISO 527
Tensile Strain, break, 5 mm/min	2.6	%	ISO 527
Tensile Modulus, 1 mm/min	6810	MPa	ISO 527
Flexural Stress, break, 2 mm/min	166	MPa	ISO 178
Flexural Modulus, 2 mm/min	6290	MPa	ISO 178
IMPACT			
Izod Impact, unnotched, 23°C	650	J/m	ASTM D 4812
Izod Impact, notched, 23°C	147	J/m	ASTM D 256
Instrumented Impact Energy @ peak, 23°C	20	J	ASTM D 3763
Charpy 23°C, V-notch Edgew 80*10*4 sp=62mm	14	kJ/m²	ISO 179/1eA
Charpy 23°C, Unnotch Edgew 80*10*4 sp=62mm	49	kJ/m²	ISO 179/1eU
THERMAL			
HDT, 0.45 MPa, 3.2 mm, unannealed	121	°C	ASTM D 648
HDT, 1.82 MPa, 3.2mm, unannealed	115	°C	ASTM D 648
CTE, 23°C to 80°C, flow	2.5E-05	1/°C	ISO 11359-2
CTE, 23°C to 80°C, xflow	7.5E-05	1/°C	ISO 11359-2
PHYSICAL			
Density	1.35	g/cm³	ASTM D 792
Mold Shrinkage, flow, 24 hrs	0.2 – 0.4	%	ASTM D 955
Mold Shrinkage, xflow, 24 hrs	0.2 – 0.4	%	ASTM D 955
Melt Flow Rate, 300°C/1.2 kgf	12	g/10 min	ASTM D 1238
Melt Flow Rate, 300°C/2.16 kgf	24	g/10 min	ASTM D 1238
Water Absorption, (23°C/sat)	0.07	%	ISO 62

© 2019 Copyright by SABIC. All rights reserved

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
Melt Volume Rate, MVR at 300°C/1.2 kg	10	cm³/10 min	ISO 1133
Melt Volume Rate, MVR at 300°C/2.16 kg	20	cm³/10 min	ISO 1133
ELECTRICAL			
Dielectric Constant, 1.1 GHz	3.24	-	SABIC method
Dielectric Constant, 1.9 GHz	3.27	-	SABIC method
Dielectric Constant, 5 GHz	3.28	-	SABIC method
Dielectric Constant, 10 GHz	3.28	-	SABIC method
Dissipation Factor, 1.1 GHz	0.0066	-	SABIC method
Dissipation Factor, 1.9 GHz	0.0067	-	SABIC method
Dissipation Factor, 5 GHz	0.0071	-	SABIC method
Dissipation Factor, 10 GHz	0.0072	-	SABIC method
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	

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 NONINFRINGEMENT 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.

© 2019 Copyright by SABIC. All rights reserved