NORYL™ RESIN EN265

REGION AMERICAS

DESCRIPTION

NORYL™ EN265 resin is a non-reinforced blend of polyphenylene ether (PPE) + high impact polystyrene (HIPS). This high heat extrusion grade contains non-brominated, non-chlorinated flame retardant and carries a UL94 flame rating of v0 at 6mm and V1 at 1.5mm along with UL746C outdoor weatherability rating of F1. NORYL EN265 resin exhibits excellent impact strength, very low moisture absorption, good dimensional stability, and great machinability. NORYL EN185 resin is an excellent candidate for a variety of indoor and outdoor electrical applications including trunking and conduit.

TYPICAL PROPERTY VALUES

Revision 20190717

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
MECHANICAL			
Tensile Stress, yld, Type I, 50 mm/min	63	MPa	ASTM D 638
Tensile Strain, brk, Type I, 50 mm/min	25	%	ASTM D 638
Flexural Stress, yld, 2.6 mm/min, 100 mm span	99	MPa	ASTM D 790
Flexural Modulus, 2.6 mm/min, 100 mm span	2550	MPa	ASTM D 790
Hardness, Rockwell R	119	-	ASTM D 785
IMPACT			
Izod Impact, notched, 23°C	186	J/m	ASTM D 256
Izod Impact, notched, -40°C	133	J/m	ASTM D 256
Gardner, -30°C	14	J	ASTM D 3029
Gardner, -40°C	4	J	ASTM D 3029
THERMAL			
HDT, 1.82 MPa, 6.4 mm, unannealed	123	°C	ASTM D 648
CTE, -40°C to 95°C, flow	5.94E-05	1/°C	ASTM E 831
Relative Temp Index, Elec [1]	110	°C	UL 746B
Relative Temp Index, Mech w/impact [1]	105	°C	UL 746B
Relative Temp Index, Mech w/o impact [1]	110	°C	UL 746B
PHYSICAL			
Specific Gravity	1.08	-	ASTM D 792
Water Absorption, 24 hours	0.07	%	ASTM D 570
Mold Shrinkage, flow, 3.2 mm	0.5 – 0.7	%	SABIC method
ELECTRICAL			
Dielectric Strength, in oil, 3.2 mm	19.6	kV/mm	ASTM D 149
Relative Permittivity, 50/60 Hz	2.69	-	ASTM D 150
Dissipation Factor, 50/60 Hz	0.0007	-	ASTM D 150
Comparative Tracking Index (UL) {PLC}	1	PLC Code	UL 746A
High Amp Arc Ignition (HAI), PLC 0	≥1.5	mm	UL 746A
Hot-Wire Ignition (HWI), PLC 0	≥1.5	mm	UL 746A
High Voltage Arc Track Rate {PLC}	4	PLC Code	UL 746A
Arc Resistance, Tungsten {PLC}	6	PLC Code	ASTM D 495
FLAME CHARACTERISTICS [1]			
UL Yellow Card Link	E121562-221239	-	-
Oxygen Index (LOI)	29.2	%	ASTM D 2863

© 2019 Copyright by SABIC. All rights reserved

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
Radiant Panel Listing	RP100	-	UL Tested
UV-light, water exposure/immersion	F1	-	UL 746C
Glow Wire Flammability Index, 1.0 mm	900	°C	IEC 60695-2-12
Glow Wire Flammability Index, 1.5 mm	900	°C	IEC 60695-2-12
Glow Wire Flammability Index, 2.0 mm	960	°C	IEC 60695-2-12
Glow Wire Flammability Index, 3.0 mm	960	°C	IEC 60695-2-12
Glow Wire Ignitability Temperature, 1.0 mm	700	°C	IEC 60695-2-13
Glow Wire Ignitability Temperature, 1.5 mm	700	°C	IEC 60695-2-13
Glow Wire Ignitability Temperature, 2.0 mm	725	°C	IEC 60695-2-13
Glow Wire Ignitability Temperature, 3.0 mm	725	°C	IEC 60695-2-13
UL Recognized, 94V-0 Flame Class Rating	≥6	mm	UL 94
UL Recognized, 94V-1 Flame Class Rating	≥1.5	mm	UL 94
EXTRUSION			
Drying Temperature	105 – 115	°C	
Drying Time	2 – 4	hrs	
Drying Time (Cumulative)	8	hrs	
Maximum Moisture Content	–	%	
Melt Temperature	225 – 255	°C	
Barrel - Zone 1 Temperature	205	°C	
Barrel - Zone 2 Temperature	205	°C	
Barrel - Zone 3 Temperature	225	°C	
Barrel - Zone 4 Temperature	225	°C	
Adapter Temperature	250	°C	
Die Temperature	250	°C	

(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.

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