

NORYL™ WCD815U resin

Polyphenylene Ether + TPE

SABIC Innovative Plastics Asia Pacific

Message:

Flexible, Ultra-violet stabilized and non-halogenated flame retardant extrusion grade intended for applications such as cable jacket in compliance with UL62. Flame retardant performance capable of meeting UL 1581 VW-1 requirement. 90C temperature rating as defined by UL 62 TPE category. Processing typically conducted on standard extrusion equipment. UL 1581 tests conducted on 2.0 mm wire with 0.12 mm x 20 stranded copper conductor.

General Information			
Additive	UV stabilizer		
Features	Good UV resistance		
	Good flexibility		
	Halogen-free		
	Flame retardancy		
Uses	Cable sheath		
Agency Ratings	UL 1581 VW-1		
	UL 62		
Processing Method	Extrusion coating		
Physical	Nominal Value	Unit	Test Method
Specific Gravity	1.03	g/cm ³	ASTM D792
Melt Mass-Flow Rate (MFR) (250°C/10.0 kg)	10	g/10 min	ASTM D1238
Hardness	Nominal Value	Unit	Test Method
Durometer Hardness (Shore A, 30 sec)	81		ASTM D2240
Mechanical	Nominal Value	Unit	Test Method
Tensile Strength			
Fracture	22.0	MPa	UL 1581
Fracture ¹	15.0	MPa	ASTM D638
Fracture, 136°C ²	23.0	MPa	UL 1581
Fracture	17.0	MPa	ISO 527-2/50
Tensile Elongation			
Fracture	330	%	UL 1581
Fracture ³	250	%	ASTM D638
Fracture, 136°C ⁴	290	%	UL 1581
Fracture	260	%	ISO 527-2/50
Flexural Modulus ⁵			
100mm span	27.0	MPa	ASTM D790
--	25.0	MPa	ISO 178
Thermal	Nominal Value	Unit	Test Method

Heat Deformation (121°C) ⁶	10	%	UL 1581
VW-1	Pass		UL 1581
Smoke Density			ASTM E662
Flame, 0.5 mm plaque, Ds, max	120		ASTM E662
Non-Flame, 0.5 mm plaque, Ds, max	170		ASTM E662
Electrical	Nominal Value	Unit	Test Method
Surface Resistivity	1.6E+16	ohms	ASTM D257
Volume Resistivity	5.1E+15	ohms·cm	ASTM D257
Dielectric Strength (2.00 mm, in Oil)	25	kV/mm	ASTM D149
Dielectric Constant (5.00 GHz)	2.60		Internal method
Dissipation Factor (5.00 GHz)	2.0E-3		Internal method
Comparative Tracking Index	600	V	IEC 60112
Flammability	Nominal Value	Unit	Test Method
Glow Wire Flammability Index (3.0 mm)	850	°C	IEC 60695-2-12
Glow Wire Ignition Temperature (3.0 mm)	775	°C	IEC 60695-2-13
Oxygen Index	27	%	ISO 4589-2
Extrusion	Nominal Value	Unit	
Drying Temperature	75 - 85	°C	
Drying Time	5.0 - 7.0	hr	
Suggested Max Moisture	0.020	%	
Cylinder Zone 1 Temp.	180 - 220	°C	
Cylinder Zone 3 Temp.	220 - 250	°C	
Cylinder Zone 5 Temp.	220 - 250	°C	
Melt Temperature	220 - 250	°C	
Die Temperature	220 - 250	°C	
Extrusion instructions			
Conductor Pre-heat Temperature: 25 - 120 °CCooling Water Air Gap: 100 - 200 mmCross-head Temperature: 220 - 250 °CDrying Time (Cumulative): 12 hrsExtruder Length/Diameter Ratio (L/D): 22:1 to 26:1Neck Temperature: 220 - 250 °CScreen Pack: 150 - 100Screw Speed: 15 - 85 rpmWater Bath Temperature: 15 - 60 °C			
NOTE			
1.	Type 1, 50mm/min		
2.	After 7 days		
3.	Type 1, 50mm/min		
4.	After 7 days		
5.	13 mm/min		
6.	250 g		

The information and data on this page are provided by manufacturers and document providers. SHANGHAI SUSHENG assumes no legal liability. It is strongly recommended to verify all technical data with material suppliers before final material selection.All rights belong to the original authors. If any infringement occurs, please contact us immediately.

Recommended distributors for this material

Susheng Import & Export Trading Co.,Ltd.

Tel: +86 21 5895 8519

Phone: +86 13424755533

Email: sales@su-jiao.com

No. 215, Lianhe North Road, Fengxian District, Shanghai, China

