

**FLEX NORYL™ Resin WCD841U - Americas**

(PPE+TPE)

Saudi Basic Industries Corporation (SABIC)

**Product Texts**

FLEX NORYL™ WCD841U resin is a flexible, non-reinforced, UV stabilized extrudable blend of Polyphenylene Ether (PPE) + Thermoplastic Elastomer (TPE). This material contains non-halogenated flame retardant and performance capable of meeting UL VW-1 requirements, 80C end use temperature rating, and heat deformation performance as defined by UL 1581. FLEX NORYL WCD841U resin is intended for evaluation in wire insulation and cable jacket applications in light colors. It has a Shore A Hardness reading of 84 and exhibits superior thermal stability, very low water absorption, good electric properties, low specific gravity, and good color stability after UV weathering per ASTM D4459. Processing is typically conducted on standard extrusion equipment, and UL 1581 testing is conducted on 2.0mm wire with 0.12mm X 20 stranded copper conductor.

Processing/Physical Characteristics	Value	Unit	Test Standard
<b>ASTM Data</b>			
Melt Flow Index, MFI	23	g/10min	ASTM D 1238
Temperature	250	°C	-
Load	5	kg	-

Mechanical properties	Value	Unit	Test Standard
<b>ISO Data</b>			
Stress at break	17	MPa	ISO 527
Strain at break	50	%	ISO 527
<b>ASTM Data</b>			
Tensile Strength at Break	18	MPa	ASTM D 638
Elongation at Break	250	%	ASTM D 638
Shore A Hardness	84	-	ASTM D 2240

Thermal properties	Value	Unit	Test Standard
<b>ISO Data</b>			
Glow Wire Flammability Index (GWFI)	960	°C	IEC 60695-2-12
GWFI - thickness tested (3)	3	mm	-
Glow Wire Ignition Temperature (GWIT)	750	°C	IEC 60695-2-13
GWIT - thickness tested (3)	3	mm	-

Electrical properties	Value	Unit	Test Standard
<b>ISO Data</b>			
Comparative tracking index	600	-	IEC 60112
<b>ASTM Data</b>			
Dissipation Factor, 1 MHz	0.006	-	ASTM D 150
Dielectric Constant, 1 MHz	2.6	-	ASTM D 150
Volume Resistivity	>1E15	Ohm*cm	ASTM D 257

Other properties	Value	Unit	Test Standard
Density	1080	kg/m <sup>3</sup>	ASTM D 792

Processing Recommendation Injection Molding	Value	Unit	Test Standard
Screw speed	15 - 85	rpm	-

**Characteristics****Additives**

Flame retarding agent

**Regional Availability**

North America

**Special Characteristics**

Flame retardant