

**FLEX NORYL™ Resin WCD801A - Asia**

(PPE+TPE)

Saudi Basic Industries Corporation (SABIC)

**Product Texts**

FLEX NORYL™ WCD801A resin is a flexible, non-reinforced, migration improved, 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 WCD801A resin is intended for evaluation in wire insulation and cable jacket applications in dark colors. It has a Shore A Hardness reading of 80 and exhibits superior thermal stability, very low water absorption, good electric properties, and low specific gravity. 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.

UL Yellow Card Link [E207780-536311](https://www.ul.com/yellow-card/E207780-536311)

Processing/Physical Characteristics	Value	Unit	Test Standard
<b>ISO Data</b>			
Thermal conductivity of melt	0.2	W/(m K)	-
Spec. heat capacity of melt	2050	J/(kg K)	-
Ejection temperature	68	°C	-
<b>ASTM Data</b>			
Melt Flow Index, MFI	11	g/10min	ASTM D 1238
Temperature	250	°C	-
Load	5	kg	-

Mechanical properties	Value	Unit	Test Standard
<b>ISO Data</b>			
Stress at break	13	MPa	ISO 527
Strain at break	50	%	ISO 527
<b>ASTM Data</b>			
Tensile Strength at Break	12	MPa	ASTM D 638
Elongation at Break	120	%	ASTM D 638
Shore A Hardness	80	-	ASTM D 2240

Thermal properties	Value	Unit	Test Standard
<b>ISO Data</b>			
Coeff. of linear therm. expansion, parallel	87.4	E-6/K	ISO 11359-1/-2
Coeff. of linear therm. expansion, normal	175	E-6/K	ISO 11359-1/-2
Burning behav. at thickness h	V-0	class	IEC 60695-11-10
Thickness tested	4.0	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>			
Relative permittivity, 1MHz	2.8	-	IEC 62631-2-1
Dissipation factor, 1MHz	40	E-4	IEC 62631-2-1
Volume resistivity	>1E13	Ohm*m	IEC 62631-3-1
Comparative tracking index	600	-	IEC 60112

Other properties	Value	Unit	Test Standard
Density	1100	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**

Asia Pacific

**Special Characteristics**

Flame retardant