

FLEX NORYL™ Resin WCA875 - Americas

(PPE+TPE)

Saudi Basic Industries Corporation (SABIC)

Product Texts

FLEX NORYL™ WCA875 resin is a flexible, non-reinforced 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, 105C end use temperature rating, and heat deformation performance as defined by UL 1581. FLEX NORYL WCA875 resin is intended for evaluation in wire insulation applications in dark colors. It has a Shore A Hardness reading of 87 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.

Processing/Physical Characteristics	Value	Unit	Test Standard
ASTM Data			
Melt Flow Index, MFI	16	g/10min	ASTM D 1238
Temperature	250	°C	-
Load	10	kg	-

Mechanical properties	Value	Unit	Test Standard
ISO Data			
Stress at break	16	MPa	ISO 527
Strain at break	50	%	ISO 527
ASTM Data			
Tensile Strength at Break	16	MPa	ASTM D 638
Elongation at Break	180	%	ASTM D 638
Shore A Hardness	87	-	ASTM D 2240

Thermal properties	Value	Unit	Test Standard
ISO Data			
Glow Wire Flammability Index (GWFI)	960	°C	IEC 60695-2-12
GWFI - thickness tested (3)	3	mm	-
Glow Wire Ignition Temperature (GWIT)	800	°C	IEC 60695-2-13
GWIT - thickness tested (3)	3	mm	-

Electrical properties	Value	Unit	Test Standard
ISO Data			
Relative permittivity, 1MHz	2.7	-	IEC 62631-2-1
Dissipation factor, 1MHz	35	E-4	IEC 62631-2-1
Comparative tracking index	600	-	IEC 60112
ASTM Data			
Volume Resistivity	>1E15	Ohm*cm	ASTM D 257

Other properties	Value	Unit	Test Standard
Density	1030	kg/m ³	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