

FLEX NORYL™ Resin WCD915 - Asia

(PPE+TPE)

Saudi Basic Industries Corporation (SABIC)

Product Texts

FLEX NORYL™ WCD915 resin is a flexible, UV stabilized, non-reinforced extrudable blend of Polyphenylene Ether (PPE) + Thermoplastic Elastomer (TPE). This material contains non-halogenated flame retardant and performance capable of meeting UL 1581 VW-1 requirement and 90C or 105C end use temperature rating as defined by UL 62 TPE category. FLEX NORYL WCD915 resin is intended for evaluation in wire and cable applications such as cable insulation materials. It has a Shore A Hardness reading of 91 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 | 9 | g/10min | ASTM D 1238 |
| Temperature | 250 | °C | - |
| Load | 10 | kg | - |

| Mechanical properties | Value | Unit | Test Standard |
|---------------------------|-------|------|---------------|
| ISO Data | | | |
| Stress at break | 14 | MPa | ISO 527 |
| Strain at break | 50 | % | ISO 527 |
| ASTM Data | | | |
| Tensile Strength at Break | 15 | MPa | ASTM D 638 |
| Elongation at Break | 170 | % | ASTM D 638 |
| Shore A Hardness | 91 | - | 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) | 825 | °C | IEC 60695-2-13 |
| GWIT - thickness tested (3) | 3 | mm | - |

| Electrical properties | Value | Unit | Test Standard |
|----------------------------|-------|--------|---------------|
| ISO Data | | | |
| Comparative tracking index | 600 | - | IEC 60112 |
| ASTM Data | | | |
| Dissipation Factor, 1 MHz | 0.033 | - | 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 | 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

Asia Pacific

Special Characteristics

Flame retardant