

Technical Data Sheet

Polyflam RIPP 510 D RED 58998

Polypropylene Copolymer

Product Description

Flame retardant PP-copolymer - grade without PBDE

Processing Method Injection Molding**Attribute** Copolymer**Additive** Flame Retardant

| Typical Properties | Nominal Value | Units | Test Method |
|---|---------------|-------------------------|----------------|
| Physical | | | |
| Melt Volume Flow Rate, (230 °C/2.16 kg) | 5.5 | cm ³ /10 min | ISO 1133 |
| Density, (Method A) | 0.940 | g/cm ³ | ISO 1183 |
| Mechanical | | | |
| Tensile Stress at Yield, (Type 1A, 50 mm/min) | 23.0 | MPa | ISO 527-2 |
| Tensile Strain at Yield, (Type 1A, 50 mm/min) | 12 | % | ISO 527-2 |
| Tensile Modulus, (1 mm/min, Type 1A) | 1100 | MPa | ISO 527-1 |
| Impact | | | |
| Charpy Impact Strength - Notched | | | |
| (23 °C, Type 1, Edgewise, Notch A) | 20 | kJ/m ² | ISO 179 |
| (-30 °C, Type 1, Edgewise, Notch A) | 3.0 | kJ/m ² | ISO 179 |
| Charpy Impact Strength - Unnotched | | | |
| (23 °C, Type 1, Edgewise) | No Break | | ISO 179 |
| (-30 °C, Type 1, Edgewise) | 60 | kJ/m ² | ISO 179 |
| Notched Izod Impact Strength | | | |
| (23 °C, Type 1, Notch A) | 7.0 | kJ/m ² | ISO 180 |
| (-40 °C, Type 1, Notch A) | 4.5 | kJ/m ² | ISO 180 |
| Notched Izod Impact (Area), (23 °C) | 10.0 | kJ/m ² | ASTM D256 |
| Unnotched Izod Impact Strength | | | |
| (23 °C, Type 1) | No Break | | ISO 180 |
| (-40 °C, Type 1) | 45 | kJ/m ² | ISO 180 |
| Hardness | | | |
| Ball Indentation Hardness, (H 358/30) | 62.0 | MPa | ISO 2039-1 |
| Ball Pressure Test, (120 °C) | Pass | | IEC 60695-10-2 |
| Thermal | | | |
| Vicat Softening Temperature | | | |
| (B (50N), 50 °C/h) | 74.0 | °C | ISO 306 |
| (A (10N), 120 °C/h) | 142 | °C | ISO 306 |

| | | | |
|---|----------|-------|----------------------|
| Deflection Temperature Under Load Unannealed (0.45 MPa), (Flatwise) | 105 | °C | ISO 75-2/B |
| Deflection Temperature Under Load Unannealed (1.80 MPa), (Flatwise) | 60.0 | °C | ISO 75-2/A |
| Electrical | | | |
| Volume Resistivity | >1.0E+13 | ohm*m | IEC 62631-3-1 |
| Comparative Tracking Index (CTI) | 600 | V | IEC 60112 |
| Surface Resistivity | >1.0E+15 | ohm | IEC 60093 |
| Flammable | | | |
| Glow Wire Flammability Index | | | |
| (0.75 mm) | 960 | °C | IEC 60695-2-12 |
| (1.5 mm) | 960 | °C | IEC 60695-2-12 |
| (3.0 mm) | 960 | °C | IEC 60695-2-12 |
| Glow Wire Ignition Temperature | | | |
| (0.75 mm) | 700 | °C | IEC 60695-2-13 |
| (1.5 mm) | 675 | °C | IEC 60695-2-13 |
| (3.0 mm) | 675 | °C | IEC 60695-2-13 |
| Oxygen Index | 29 | % | ISO 4589-2 |
| UL Information | | | |
| Flammability Classification | | | |
| (0.75 mm) | V-2 | | IEC 60695-11-10, -20 |
| (1.5 mm) | V-2 | | IEC 60695-11-10, -20 |
| UL File Number | E86615 | | |

| Injection Parameters | Nominal Value | Units |
|-----------------------------|----------------------|--------------|
| Drying Time | 2.0 to 4.0 | hr |
| Drying Temperature | 70 to 80 | °C |
| Nozzle Temperature | 220 | °C |
| Screw Speed | <300 | mm/sec |
| Processing (Melt) Temp | 180 to 220 | °C |
| Front Temperature | 210 | °C |
| Holding Pressure | 40.0 to 90.0 | MPa |
| Middle Temperature | 200 | °C |
| Rear Temperature | 180 | °C |
| Injection Rate | Slow-Moderate | |
| Back Pressure | 5.00 to 10.0 | MPa |
| Mold Temperature | 40 to 80 | °C |
| Injection Pressure | 80.0 to 120 | MPa |
| Cushion | <5.00 | mm |