# Telcar® TL-2934F

Thermoplastic Elastomer

Teknor Apex Company

## Message:

Telcar TL-2934F is a general purpose thermoplastic elastomer, available in Nat, BLK, and colors, designed for electrical applications requiring flexibility over a wide temperature range. Telcar TL-2934F is a medium hardness, high density grade that is UL 94 rated with 720hr sunlight resistance and is suitable for both injection molding and extrusion.

| General Information | |
|---|---|
| Features | High specific gravity |
| | High density |
| | Good formability |
| | Good coloring |
| | Low liquidity |
| | Halogenated |
| | Sunlight resistance, 720 hours |
| | Fill |
| | brominated |
| | Medium hardness |
| | Flame retardancy |
| Uses | Cable sheath |
| | Electrical/Electronic Applications |
| | Wire and cable applications |
| | Wire sheath |
| | Insulating material |
| | Connector |
| | Rubber substitution |
| Agency Ratings | UL 94 |
| RoHS Compliance | RoHS compliance |
| Appearance | White |
| | Black |
| | Yellow |
| | Natural color |
| Forms | Particle |
| Processing Method | Extrusion |
| | Injection molding |

| Physical | Nominal Value | Unit | Test Method |
|---|---|---|---|

| | | | |
|---|---|---|---|
| Specific Gravity | 1.30 | g/cm³ | ASTM D792 |
| Melt Mass-Flow Rate (MFR) | 0.10 | g/10 min | ASTM D1238 |
| **Hardness** | **Nominal Value** | **Unit** | **Test Method** |
| Durometer Hardness (Shore A) | 72 | | ASTM D2240 |
| **Elastomers** | **Nominal Value** | **Unit** | **Test Method** |
| Tensile Stress | | | ASTM D412 |
| 100% strain, 0.508mm | 3.03 | MPa | ASTM D412 |
| 300% strain, 0.508mm | 4.48 | MPa | ASTM D412 |
| Tensile Strength (fracture, 0.508mm) | 11.0 | MPa | ASTM D412 |
| Tensile Elongation (fracture, 0.508mm) | 600 | % | ASTM D412 |
| **Aging** | **Nominal Value** | **Unit** | **Test Method** |
| Change in Tensile Strength in Air (158°C, 168 hr) | 7.0 | % | ASTM D573 |
| Change in Ultimate Elongation in Air (158°C, 168 hr) | -11 | % | ASTM D573 |
| Change in Tensile Strength (60°C, 168 hr, in IRM 902 Oil) | -16 | % | ASTM D471 |
| Change in Ultimate Elongation (60°C, 168 hr, in IRM 902 Oil) | -13 | % | ASTM D471 |
| **Thermal** | **Nominal Value** | **Unit** | **Test Method** |
| Continuous Use Temperature | 105 | °C | ASTM D794 |
| Brittleness Temperature | -47.0 | °C | ASTM D746 |
| RTI Elec | 50.0 | °C | UL 746 |
| RTI | 50.0 | °C | UL 746 |
| **Electrical** | **Nominal Value** | **Unit** | **Test Method** |
| Dielectric Constant (1 kHz) | 2.60 | | ASTM D150 |
| **Flammability** | **Nominal Value** | **Unit** | **Test Method** |
| Flame Rating | | | UL 94 |
| 1.5 mm, BK | V-1 | | UL 94 |
| 1.5 mm, NT, WT, YL | V-0 | | UL 94 |
| Oxygen Index | 29 | % | ASTM D2863 |

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| Injection | Nominal Value | Unit |
|---|---|---|
| Rear Temperature | 199 - 216 | °C |
| Middle Temperature | 213 - 221 | °C |
| Front Temperature | 221 - 227 | °C |
| Nozzle Temperature | 221 - 229 | °C |
| Processing (Melt) Temp | 221 - 229 | °C |

| | | |
|---|---|---|
| Mold Temperature | 25 - 66 | °C |
| Injection Pressure | 1.38 - 6.89 | MPa |
| Injection Rate | Moderate-Fast | |
| Back Pressure | 0.172 - 0.345 | MPa |
| Screw Speed | 50 - 100 | rpm |
| Cushion | 3.81 - 25.4 | mm |

| Injection instructions |
|---|
| Drying is not necessary. However, if moisture is a problem, dry the pellets for 2 to 4 hours at 150°F (65°C). |

| Extrusion | Nominal Value | Unit |
|---|---|---|
| Cylinder Zone 1 Temp. | 193 - 210 | °C |
| Cylinder Zone 2 Temp. | 199 - 216 | °C |
| Cylinder Zone 3 Temp. | 213 - 221 | °C |
| Cylinder Zone 4 Temp. | 213 - 221 | °C |
| Cylinder Zone 5 Temp. | 221 - 227 | °C |
| Die Temperature | 221 - 229 | °C |

| Extrusion instructions |
|---|
| Screw Speed: 30 to 100 rpm |

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## Recommended distributors for this material

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