

# Telcar® TL-3954-70

Thermoplastic Elastomer

Teknor Apex Company

## Message:

Telcar®TL-3954-70 is a thermoplastic elastomer (TPE) material. This product is available in North America, Africa and the Middle East, Latin America, Europe or Asia Pacific. The processing method is extrusion or injection molding. Telcar®The main characteristics of the TL-3954-70 are: flame retardant/rated flame.

Typical application areas include:

Wire and cable

Electrical/electronic applications

| General Information                       |                                          |                   |             |
|-------------------------------------------|------------------------------------------|-------------------|-------------|
| UL YellowCard                             | E54709-245343                            | E142591-100745019 |             |
| Uses                                      | Underground cable                        |                   |             |
|                                           | Cable sheath                             |                   |             |
|                                           | Electrical wire sheath material          |                   |             |
|                                           | Electrical conductor insulation material |                   |             |
|                                           | Wire and cable applications              |                   |             |
|                                           | Wire sheath                              |                   |             |
|                                           | Industrial cable insulation material     |                   |             |
|                                           | Connector                                |                   |             |
|                                           | cord sheath                              |                   |             |
|                                           | Terminal cable sheath material           |                   |             |
| Appearance                                | Opacity                                  |                   |             |
| Forms                                     | Particle                                 |                   |             |
| Processing Method                         | Extrusion                                |                   |             |
|                                           | Injection molding                        |                   |             |
| Physical                                  | Nominal Value                            | Unit              | Test Method |
| Specific Gravity                          | 1.18                                     | g/cm³             | ASTM D792   |
| Melt Mass-Flow Rate (MFR) (230°C/2.16 kg) | 1.7                                      | g/10 min          | ASTM D1238  |
| Hardness                                  | Nominal Value                            | Unit              | Test Method |
| Durometer Hardness (Shore A)              | 70                                       |                   | ASTM D2240  |
| Elastomers                                | Nominal Value                            | Unit              | Test Method |
| Tensile Strength (Break)                  | 5.10                                     | MPa               | ASTM D412   |
| Tensile Elongation (Break)                | 700                                      | %                 | ASTM D412   |
| Thermal                                   | Nominal Value                            | Unit              | Test Method |
| Brittleness Temperature                   | < -60.0                                  | °C                | ASTM D746   |
| RTI Elec                                  | 90.0                                     | °C                | UL 746      |
| RTI                                       | 90.0                                     | °C                | UL 746      |

| Electrical                         | Nominal Value | Unit  | Test Method |
|------------------------------------|---------------|-------|-------------|
| Dielectric Strength                | 42            | kV/mm | ASTM D149   |
| Flammability                       | Nominal Value | Unit  | Test Method |
| Flame Rating (1.50 mm, All Colors) | HB            |       | UL 94       |
| Injection                          | Nominal Value | Unit  |             |
| Rear Temperature                   | 171 - 193     | °C    |             |
| Middle Temperature                 | 177 - 199     | °C    |             |
| Front Temperature                  | 182 - 204     | °C    |             |
| Nozzle Temperature                 | 188 - 210     | °C    |             |
| Processing (Melt) Temp             | 188 - 210     | °C    |             |
| Mold Temperature                   | 25.0 - 65.6   | °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    |             |
| Extrusion                          | Nominal Value | Unit  |             |
| Cylinder Zone 1 Temp.              | 166 - 188     | °C    |             |
| Cylinder Zone 2 Temp.              | 171 - 193     | °C    |             |
| Cylinder Zone 3 Temp.              | 177 - 199     | °C    |             |
| Cylinder Zone 5 Temp.              | 182 - 204     | °C    |             |
| Die Temperature                    | 190 - 210     | °C    |             |
| Extrusion instructions             |               |       |             |
| 螺杆转速30 - 100 rpm                   |               |       |             |

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#### Recommended distributors for this material

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