



# Telcar® TL-3954P (PRELIMINARY DATA)

Teknor Apex Company - Thermoplastic Elastomer

## General Information

### Product Description

Telcar TL-3954P is a halogen-free thermoplastic elastomer, available in Nat and colors, designed for a variety electrical applications, including wire & cable, requiring flexibility over a wide temperature range. Telcar TL-3954P is a low hardness, high density, RoHS compliant grade that is suitable for both injection molding and extrusion.

### General

|                   |                                                                                                |                                                                                                                  |                                                                              |
|-------------------|------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------|
| Material Status   | • Preliminary Data                                                                             |                                                                                                                  |                                                                              |
| Availability      | • Africa & Middle East<br>• Asia Pacific                                                       | • Europe<br>• Latin America                                                                                      | • North America                                                              |
| Features          | • Filled<br>• Halogen Free<br>• High Density                                                   | • High Specific Gravity<br>• Low Hardness<br>• Lubricated                                                        | • Medium Flow<br>• Slip                                                      |
| Uses              | • Appliance Wire Insulation<br>• Appliance Wire Jacketing<br>• Cable Jacketing<br>• Connectors | • Flexible Cord Jacketing<br>• Industrial Cable Insulation<br>• Rubber Replacement<br>• Terminal Cable Jacketing | • Underground Power Cable<br>• Wire & Cable Applications<br>• Wire Jacketing |
| RoHS Compliance   | • RoHS Compliant                                                                               |                                                                                                                  |                                                                              |
| Appearance        | • Colors Available                                                                             | • Natural Color                                                                                                  | • Opaque                                                                     |
| Forms             | • Pellets                                                                                      |                                                                                                                  |                                                                              |
| Processing Method | • Extrusion                                                                                    | • Injection Molding                                                                                              |                                                                              |

## ASTM & ISO Properties <sup>1</sup>

| Physical                                 | Nominal Value | Unit     | Test Method |
|------------------------------------------|---------------|----------|-------------|
| Density / Specific Gravity               | 1.16          |          | ASTM D792   |
| Melt Mass-Flow Rate (MFR) (200°C/5.0 kg) | 11            | g/10 min | ASTM D1238  |
| Elastomers                               | Nominal Value | Unit     | Test Method |
| Tensile Strength (Break)                 | 800           | psi      | ASTM D412   |
| Tensile Elongation (Break)               | 600           | %        | ASTM D412   |
| Hardness                                 | Nominal Value | Unit     | Test Method |
| Durometer Hardness                       |               |          | ASTM D2240  |
| Shore A, 1 sec, Injection Molded         | 38            |          |             |
| Shore A, 5 sec, Injection Molded         | 36            |          |             |

## Processing Information

| Injection              | Nominal Value | Unit |
|------------------------|---------------|------|
| Rear Temperature       | 370 to 420    | °F   |
| Middle Temperature     | 370 to 420    | °F   |
| Front Temperature      | 370 to 420    | °F   |
| Nozzle Temperature     | 370 to 420    | °F   |
| Processing (Melt) Temp | 370 to 420    | °F   |

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| Injection                  | Nominal Value | Unit |
|----------------------------|---------------|------|
| Mold Temperature           | 60 to 90      | °F   |
| Injection Pressure         | 200 to 1000   | psi  |
| Injection Rate             | Moderate-Fast |      |
| Back Pressure              | 25.0 to 50.0  | psi  |
| Screw Speed                | 50 to 100     | rpm  |
| Cushion                    | 0.150 to 1.00 | in   |
| Extrusion                  | Nominal Value | Unit |
| Cylinder Zone 1 Temp.      | 350 to 400    | °F   |
| Cylinder Zone 2 Temp.      | 350 to 400    | °F   |
| Cylinder Zone 3 Temp.      | 350 to 400    | °F   |
| Cylinder Zone 4 Temp.      | 350 to 400    | °F   |
| Cylinder Zone 5 Temp.      | 350 to 400    | °F   |
| Die Temperature            | 350 to 400    | °F   |
| Extrusion Notes            |               |      |
| Screw Speed: 30 to 100 rpm |               |      |

### Notes

<sup>1</sup> Typical properties: these are not to be construed as specifications.