# Telcar® TELC-340

#### Thermoplastic Elastomer

**Teknor Apex Company** 

#### Message:

General Information

Telcar TELC-340 is a general purpose thermoplastic elastomer designed for the consumer and industrial markets. Telcar TELC-340 is a high hardness, low density grade that is suitable for extrusion and injection molding.

| Features   | Low density       |          |             |
|--|-------------------|----------|-------------|
| Uses   | General           |          |             |
| Appearance   | Natural color     |          |             |
| Forms  | Particle          |          |             |
| Processing Method  | Extrusion         |          |             |
|  | Injection molding |          |             |
|  |                   |          |             |
| Physical   | Nominal Value     | Unit     | Test Method |
| Specific Gravity   | 0.888             | g/cm³    | ASTM D792   |
| Melt Mass-Flow Rate (MFR) (230°C/2.16                          |                   |          |             |
| kg)  | 5.0               | g/10 min | ASTM D1238  |
| Hardness   | Nominal Value     | Unit     | Test Method |
| Durometer Hardness <sup>1</sup> (Shore A, 5 sec)               | 94                |          | ISO 868     |
| Mechanical   | Nominal Value     | Unit     | Test Method |
| Flexural Modulus   | 172               | MPa      | ASTM D790   |
| Elastomers   | Nominal Value     | Unit     | Test Method |
| Tensile Stress   |                   |          | ISO 37      |
| Transverse flow: 100% strain                                   | 6.24              | MPa      | ISO 37      |
| Flow: 100% strain  | 8.31              | MPa      | ISO 37      |
| Tensile Strength   |                   |          | ISO 37      |
| Transverse flow: Fracture                                      | 12.5              | MPa      | ISO 37      |
| Flow: Fracture   | 9.90              | MPa      | ISO 37      |
| Tensile Elongation   |                   |          | ISO 37      |
| Transverse flow: Fracture                                      | 810               | %        | ISO 37      |
| Flow: Fracture   | 560               | %        | ISO 37      |
| Tear Strength - Across Flow                                    | 74.0              | kN/m     | ISO 34      |
| Compression Set <sup>2</sup> (23°C, 22 hr)                     | 57                | %        | ISO 815     |
| Aging  | Nominal Value     | Unit     | Test Method |
| Change in Tensile Strength in Air                              |                   |          | ISO 188     |
| 110°C, 1008 hr   | -7.2              | %        | ISO 188     |
| 125°C, 168 hr  | -4.0              | %        | ISO 188     |
| Changes in tensile stress upon fracture in air-Transverse flow |                   |          | ISO 188     |

| 110°C, 1008 hr                         | -14           | %    | ISO 188     |
|--|---------------|------|-------------|
| 125°C, 168 hr                          | -8.3          | %    | ISO 188     |
| Change in Shore Hardness in Air        |               |      | ISO 188     |
| Support a, 110°C, 1008 hr              | -0.20         |      | ISO 188     |
| Support a, 125°C, 168 hr               | 0.50          |      | ISO 188     |
| Thermal                                | Nominal Value | Unit | Test Method |
| Brittleness Temperature                | < -50.0       | °C   | ASTM D746   |
| Fill Analysis                          | Nominal Value | Unit | Test Method |
| Apparent Viscosity (200°C, 206 sec^-1) | 322           | Pa·s | ASTM D3835  |
| Legal statement                        |               |      |             |

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| 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     |               |      |
| Screw Speed: 30 to 100 rpm |               |      |
| NOTE                       |               |      |
| 1.                         | Instant       |      |
| 2.                         | Method A      |      |
|                            |               |      |

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