# Heraflex® E 45TF1L3CK 1700 NT

## Radici Group High Performance Polymers - *Thermoplastic Copolyester Elastomer*

### General Information

**Product Description**

TPC-ET thermoplastic elastomer for injection moulding or extrusion. This product contains fluoropolymer thus exhibits excellent surface lubricity. Heat stabilized. Natural colour.

Suitable for parts require; flexibility, electrostatic discharge, low hardness, medium modulus, and excellent impact resistance.

| General | | | |
|---|---|---|---|
| Material Status | • Commercial: Active | | |
| Availability | • Africa & Middle East<br>• Asia Pacific | • Europe<br>• Latin America | • North America |
| Additive | • Heat Stabilizer | | |
| Features | • Good Flexibility<br>• Heat Stabilized | • High Impact Resistance<br>• Low Hardness | |
| Uses | • Automotive Applications | | |
| Agency Ratings | • EU 2011/65/EC | | |
| RoHS Compliance | • RoHS Compliant | | |
| Automotive Specifications | • STELLANTIS MS-DB-448 CPN4900 | | |
| Appearance | • Natural Color | | |
| Processing Method | • Extrusion | • Injection Molding | |
| Resin ID (ISO 1043) | • TPC-T SI | | |

### Properties [1]

| Physical | Nominal Value | Unit | Test Method |
|---|---|---|---|
| Density | 1.20 | g/cm³ | ISO 1183 |
| **Mechanical** | **Nominal Value** | **Unit** | **Test Method** |
| Tensile Modulus | 58000 | psi | ISO 527-1/1A/1 |
| Tensile Stress (Yield) | 2320 | psi | ISO 527-2/1A/50 |
| Tensile Strain (Yield) | 100 | % | ISO 527-2/1A/50 |
| Nominal Tensile Strain at Break | 300 | % | ISO 527-2/1A/50 |
| Flexural Modulus [2] | 30500 | psi | ISO 178 |
| Flexural Stress [2] | 1250 | psi | ISO 178 |
| **Impact** | **Nominal Value** | **Unit** | **Test Method** |
| Charpy Notched Impact Strength | | | ISO 179/1eA |
| -22°F | No Break | | |
| 73°F | No Break | | |
| **Hardness** | **Nominal Value** | **Unit** | **Test Method** |
| Shore Hardness (Shore D, Instant) | 48 | | ISO 868 |
| **Thermal** | **Nominal Value** | **Unit** | **Test Method** |
| Deflection Temperature Under Load (66 psi, Unannealed) | 158 | °F | ISO 75-2/Bf |
| Deflection Temperature Under Load (264 psi, Unannealed) | 113 | °F | ISO 75-2/Af |
| Melting Temperature [3] | 410 | °F | ISO 11357-3 |

### Processing Information

| Injection | Nominal Value | Unit |
|---|---|---|
| Drying Temperature - Desiccant Dryer | 230 | °F |
| Drying Time - Desiccant Dryer | 2.0 to 4.0 | hr |
| Dew Point - Desiccant Dryer | -22 | °F |
| Suggested Max Moisture | 0.050 | % |
| Processing (Melt) Temp | 419 to 464 | °F |

| | |
|---|---|
| Mold Temperature | 86 to 122 °F |
| Injection Rate | Moderate-Fast |

| **Extrusion** | **Nominal Value** | **Unit** |
|---|---|---|
| Melt Temperature | 410 to 464 | °F |

**Notes**

[1] Typical properties: these are not to be construed as specifications.

[2] 0.079 in/min

[3] 10°C/min