

Product Texts

Common features of Hytrel® thermoplastic polyester elastomer include mechanical and physical properties such as exceptional toughness and resilience, high resistance to creep, impact and flex fatigue, flexibility at low temperatures and good retention of properties at elevated temperatures. In addition, it resists many industrial chemicals, oils and solvents. Special grades include heat stabilised, flame retardant, food contact compliant, blow molding and extrusion grades. Concentrates offered include black pigments, UV protection additives, heat stabilisers, and flame retardants.

Hytrel® thermoplastic polyester elastomer is plasticiser free.

The good melt stability of Hytrel® thermoplastic polyester elastomer normally enables the recycling of properly handled production waste. If recycling is not possible, we recommend, as the preferred option, incineration with energy recovery (-24 kJ/g of base polymer) in appropriately equipped installations.

For disposal, local regulations have to be observed.

Hytrel® thermoplastic polyester elastomer typically is used in demanding applications in the automotive, fluid power, electrical/electronic, consumer goods, appliance and power tool, sporting goods, furniture, industrial and off-road transportation/equipment industry.

Hytrel® G3548 is a low modulus grade with nominal hardness of 35D. It contains non-discoloring stabilizer. It can be processed by many conventional thermoplastic processing techniques like injection molding and extrusion.

| Processing/Physical Characteristics | Value | Unit | Test Standard |
|--|------------|------|-----------------|
| ISO Data | | | |
| ^[C] Molding shrinkage, parallel | 0.8 | % | ISO 294-4, 2577 |
| ^[C] Molding shrinkage, normal | 0.8 | % | ISO 294-4, 2577 |

[C]: CAMPUS

| Mechanical properties | Value | Unit | Test Standard |
|--|------------|-------------------|---------------|
| ISO Data | | | |
| ^[C] Charpy notched impact strength, +23°C | N | kJ/m ² | ISO 179/1eA |
| ^[C] Charpy notched impact strength, -30°C | N | kJ/m ² | ISO 179/1eA |
| ^[C] Stress at 10% elongation | 2.5 | MPa | ISO 527 |
| ^[C] Stress at break TPE | 10 | MPa | ISO 527 |
| ^[C] Strain at break TPE | 190 | % | ISO 527 |
| ^[C] Shore D hardness | 24 | - | ISO 7619-1 |

[C]: CAMPUS

| Thermal properties | Value | Unit | Test Standard |
|---|------------|--------|----------------------|
| ISO Data | | | |
| ^[C] Melting temperature, 10°C/min | 157 | °C | ISO 11357-1/-3 |
| ^[C] Glass transition temperature, 10°C/min | -45 | °C | ISO 11357-1/-2 |
| ^[C] Burning Behav. at 1.5 mm nom. thickn. | HB | class | IEC 60695-11-10 |
| Thickness tested | 1.5 | mm | - |
| Yellow Card available | yes | - | - |
| ^[C] Burning Behav. at thickness h | HB | class | IEC 60695-11-10 |
| Thickness tested | 3.0 | mm | - |
| Yellow Card available | yes | - | - |
| ^[C] Burning rate, FMVSS, Thickness 1 mm | 52 | mm/min | ISO 3795 (FMVSS 302) |

[C]: CAMPUS

| Other properties | Value | Unit | Test Standard |
|------------------------------------|-------------|-------------------|----------------|
| ^[C] Water absorption | 12 | % | Sim. to ISO 62 |
| ^[C] Humidity absorption | 0.8 | % | Sim. to ISO 62 |
| ^[C] Density | 1150 | kg/m ³ | ISO 1183 |

[C]: CAMPUS

Characteristics

Processing

Injection Molding, Film Extrusion, Profile Extrusion, Other Extrusion

Features

Color Stability

Delivery form

Pellets, Natural Color

Regional Availability

North America, Europe, Asia Pacific, South and Central America