Hytrel® 4056P

TPC | Celanese

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® 4056P is a low modulus Hytrel® grade with nominal durometer hardness of 40D and with high impact resistance down to -40°C. It is delivered in a powder form.

Processing/Physical Characteristics	Value	Unit	Test Standard
ISO Data			
[C] Melt volume-flow rate, MVR	**5**	cm³/10min	ISO 1133
Temperature	**190**	°C	-
Load	**2.16**	kg	-

[C]: CAMPUS

Mechanical properties	Value	Unit	Test Standard
ISO Data			
[C] Tensile Modulus	**60**	MPa	ISO 527
[C] Tensile creep modulus, 1h	**54**	MPa	ISO 899-1
[C] Tensile creep modulus, 1000h	**40**	MPa	ISO 899-1
[C] Charpy impact strength, +23°C	**N**	kJ/m²	ISO 179/1eU
[C] Charpy impact strength, -30°C	**N**	kJ/m²	ISO 179/1eU
[C] Charpy notched impact strength, +23°C	**N**	kJ/m²	ISO 179/1eA
[C] Charpy notched impact strength, -30°C	**N**	kJ/m²	ISO 179/1eA
[C] Tensile notched impact strength, +23°C	**230**	kJ/m²	ISO 8256/1
[C] Stress at 10% elongation	**4.6**	MPa	ISO 527
[C] Stress at break TPE	**22**	MPa	ISO 527
[C] Strain at break TPE	**>300**	%	ISO 527
[C] Abrasion resistance	**200**	mm³	ISO 4649
[C] Shore D hardness	**37**	-	ISO 7619-1

[C]: CAMPUS

Thermal properties	Value	Unit	Test Standard
ISO Data			
[C] Melting temperature, 10°C/min	**152**	°C	ISO 11357-1/-3
[C] Glass transition temperature, 10°C/min	**-50**	°C	ISO 11357-1/-2

[C]: CAMPUS

Electrical properties	Value	Unit	Test Standard
ISO Data			
[C] Comparative tracking index	**600**	-	IEC 60112

[C]: CAMPUS

Characteristics

Processing
Thermoforming

Delivery form
Powder

Special Characteristics
High impact or impact modified, Light stabilized or stable to light

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