Hytrel® G4078 NC010

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 moulding 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® G4078 is a low modulus grade with nominal hardness of 40D. It contains non-discoloring stabilizer. It can be processed many conventional thermoplastic processing techniques like injection molding and extrusion.

Processing/Physical Characteristics	Value	Unit	Test Standard
ISO Data			
[C] Molding shrinkage, parallel	**0.5**	%	ISO 294-4, 2577
[C] Molding shrinkage, normal	**1.1**	%	ISO 294-4, 2577
[C] Density of melt	**1060**	kg/m³	-

[C]: CAMPUS

Mechanical properties	Value	Unit	Test Standard
ISO Data			
[C] Charpy notched impact strength, +23°C	**N**	kJ/m²	ISO 179/1eA
[C] Tensile notched impact strength, +23°C	**260**	kJ/m²	ISO 8256/1
[C] Stress at 10% elongation	**4.7**	MPa	ISO 527
[C] Stress at break TPE	**16**	MPa	ISO 527
[C] Strain at break TPE	**220**	%	ISO 527
[C] Shore D hardness	**33**	-	ISO 7619-1

[C]: CAMPUS

Thermal properties	Value	Unit	Test Standard
ISO Data			
[C] Melting temperature, 10°C/min	**170**	°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]: CAMPUS

Other properties	Value	Unit	Test Standard
[C] Water absorption	**6.5**	%	Sim. to ISO 62
[C] Humidity absorption	**0.7**	%	Sim. to ISO 62
[C] Density	**1180**	kg/m³	ISO 1183

[C]: CAMPUS

Film Properties	Value	Unit	Test Standard
ISO Data			
[C] WVTR, 23°C/85%r.h.	**2000**	g/(m²*d)	ISO 15106-1/-2
[C] Type of extrusion	**blown**	-	-
[C] Thickness of specimen	**0.025**	mm	-

[C]: CAMPUS

Characteristics

Processing
Injection Molding, Film Extrusion, Profile Extrusion, Sheet Extrusion, Casting, Thermoforming

Delivery form
Pellets, Natural Color

Features
Color Stability

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