Hytrel® SC988 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 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® SC988 NC010 is the highest modulus grade, with nominal hardness of 82D, contains a non-discoloring stabilizer. Can be processed by various thermoplastic processing techniques. Developed for applications such as parts for the healthcare industry.

SPECIAL CONTROL for HEALTHCARE APPLICATIONS

This product is manufactured according to Good Manufacturing Practice (GMP) principles and generally accepted in food contact applications in the USA when meeting applicable use conditions. This product is also tested against ISO 10993-5 and -11 and selected parts of USP Class VI. For details, individual compliance statements are available from our representative.

Processing/Physical Characteristics	Value	Unit	Test Standard
ISO Data			
[C] Melt volume-flow rate, MVR	**12**	cm³/10min	ISO 1133
Temperature	**240**	°C	-
Load	**2.16**	kg	-
[C] Molding shrinkage, parallel	**1.6**	%	ISO 294-4, 2577
[C] Molding shrinkage, normal	**1.6**	%	ISO 294-4, 2577
[C] Density of melt	**1130**	kg/m³	-

[C]: CAMPUS

Mechanical properties	Value	Unit	Test Standard
ISO Data			
[C] Tensile Modulus	**1200**	MPa	ISO 527
[C] Charpy notched impact strength, +23°C	**15**	kJ/m²	ISO 179/1eA
[C] Charpy notched impact strength, -30°C	**5**	kJ/m²	ISO 179/1eA
[C] Stress at 10% elongation	**35**	MPa	ISO 527
[C] Stress at break TPE	**46**	MPa	ISO 527
[C] Strain at break TPE	**>300**	%	ISO 527
[C] Shore D hardness	**70**	-	ISO 7619-1

[C]: CAMPUS

Thermal properties	Value	Unit	Test Standard
ISO Data			
[C] Melting temperature, 10°C/min	**221**	°C	ISO 11357-1/-3
[C] Glass transition temperature, 10°C/min	**50**	°C	ISO 11357-1/-2
[C] Temp. of deflection under load, 0.45 MPa	**105**	°C	ISO 75-1/-2
[C] Vicat softening temperature, B	**150**	°C	ISO 306
[C] Coeff. of linear therm. expansion, parallel	**145**	E-6/K	ISO 11359-1/-2
[C] Coeff. of linear therm. expansion, normal	**150**	E-6/K	ISO 11359-1/-2
[C] Burning Behav. at 1.5 mm nom. thickn.	**HB**	class	IEC 60695-11-10
Thickness tested	**1.5**	mm	-

[C]: CAMPUS

Other properties	Value	Unit	Test Standard
[C] Water absorption	**0.6**	%	Sim. to ISO 62
[C] Humidity absorption	**0.2**	%	Sim. to ISO 62
[C] Density	**1280**	kg/m³	ISO 1183

[C]: CAMPUS

Characteristics

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

Delivery form
Pellets, Natural Color

Special Characteristics
Light stabilized or stable to light

Features
Color Stability

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