

# DuPont™ Hytrel® PC945 NC010

## THERMOPLASTIC POLYESTER ELASTOMER

### Product Information

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, DuPont recommends, 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® PC945 is a low modulus grade with nominal durometer hardness of 40D. It contains a non-discoloring stabilizer and is recommended for extrusion and compounding. It is developed for applications such as parts for the healthcare industry.**

#### PREMIUM 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 and FDA drug and device master files (DMF and MAF) have been established. For details, individual compliance statements are available from your DuPont representative.

The below datasheet is a condensed version. For a complete datasheet, please contact your DuPont representative.

General information	Value	Unit	Test Standard
Resin Identification	TPC-ET	-	ISO 1043
Part Marking Code	TPC-ET	-	ISO 11469
Mechanical properties (TPE)	Value	Unit	Test Standard
Stress at break	26	MPa	ISO 527-1/-2
Strain at break	>300	%	ISO 527-1/-2
Shore D hardness, max	40	-	ISO 7619-1
Mechanical properties	Value	Unit	Test Standard
Charpy notched impact strength, 73 °F	N	kJ/m <sup>2</sup>	ISO 179/1eA
Thermal properties	Value	Unit	Test Standard
Melting temperature, 18 °F/min	150	°C	ISO 11357-1/-3
Flammability	Value	Unit	Test Standard
FMVSS Class	B	-	ISO 3795 (FMVSS 302)
Burning rate, Thickness 1 mm	<100	mm/min	ISO 3795 (FMVSS 302)
Other properties	Value	Unit	Test Standard
Density	1150	kg/m <sup>3</sup>	ISO 1183
Injection	Value	Unit	Test Standard
Drying Recommended	yes	-	-
Drying Temperature	100	°C	-
Drying Time, Dehumidified Dryer	2 - 3	h	-
Processing Moisture Content	≤0.08	%	-
Extrusion	Value	Unit	Test Standard
Processing Moisture Content	≤0.06	%	-
Melt Temperature Optimum	170	°C	-

### Characteristics

Processing	<ul style="list-style-type: none"> <li>• Injection Molding</li> <li>• Film Extrusion</li> <li>• Profile Extrusion</li> </ul>	<ul style="list-style-type: none"> <li>• Sheet Extrusion</li> <li>• Other Extrusion</li> <li>• Coating</li> </ul>	<ul style="list-style-type: none"> <li>• Calendering</li> <li>• Casting</li> </ul>
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To find out more, visit [DuPont Performance Polymers](#) or contact nearest DuPont location.

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## THERMOPLASTIC POLYESTER ELASTOMER

Delivery form

- Pellets

Special characteristics

- Light stabilized or stable to light

Contact DuPont for Material Safety Data Sheet, general guides and/or additional information about ventilation, handling, purging, drying, etc. ISO Mechanical properties measured at 160 mil (Hytrel® measured at 80 mil), IEC Electrical properties measured at 80 mil, all ASTM properties measured at 120 mil, and test temperatures are 73°F unless otherwise stated.

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