# DuPont™ Hytrel® SC976 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® SC976 NC010 is a high modulus grade with nominal hardness of 72D, contains a non-discoloring stabilizer and 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 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 | 53 | MPa | ISO 527-1/-2 |
| Strain at break | >300 | % | ISO 527-1/-2 |
| Shore D hardness, max | 72 | - | ISO 7619-1 |
| **Mechanical properties** | **Value** | **Unit** | **Test Standard** |
| Tensile Modulus | 525 | MPa | ISO 527-1/-2 |
| Charpy notched impact strength, 73°F | 33 | kJ/m² | ISO 179/1eA |
| **Thermal properties** | **Value** | **Unit** | **Test Standard** |
| Melting temperature, 18°F/min | 218 | °C | ISO 11357-1/-3 |
| **Flammability** | **Value** | **Unit** | **Test Standard** |
| FMVSS Class | DNI | - | ISO 3795 (FMVSS 302) |
| **VDA Properties** | **Value** | **Unit** | **Test Standard** |
| Emission of organic compounds | 280 | µgC/g | VDA 277 |
| **Injection** | **Value** | **Unit** | **Test Standard** |
| Drying Recommended | yes | - | - |
| Drying Temperature | 110 | °C | - |
| Drying Time, Dehumidified Dryer | 2 - 3 | h | - |
| Processing Moisture Content | ≤0.08 | % | - |

| Characteristics | | | |
|---|---|---|---|
| Processing | • Injection Molding<br>• Film Extrusion<br>• Profile Extrusion | • Sheet Extrusion<br>• Other Extrusion<br>• Casting | • Thermoforming |
| Delivery form | • Pellets | | |
| Special characteristics | • Light stabilized or stable to light | | |



**To find out more, visit DuPont Performance Polymers or contact nearest DuPont location.**

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Tel: +1 302 999-4592
Toll-Free (USA): 800 441-0575

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**Europe/Middle East/Africa**
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|---|---|---|---|
| Regional Availability | • North America<br>• Europe | • Asia Pacific<br>• South and Central America | • Near East/Africa<br>• Global |

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.

The information set forth herein is furnished free of charge and is based on technical data that DuPont believes to be reliable and falls within the normal range of properties. It is intended for use by persons having technical skill, at their own discretion and risk. This data should not be used to establish specification limits nor used alone as the basis of design. Handling precaution information is given with the understanding that those using it will satisfy themselves that their particular conditions of use present no health or safety hazards. Since conditions of product use and disposal are outside our control, we make no warranties, express or implied, and assume no liability in connection with any use of this information. As with any product, evaluation under end-use conditions prior to specification is essential. Nothing herein is to be taken as a license to operate or a recommendation to infringe on patents. Caution: Do not use in medical applications involving permanent implantation in the human body. For other medical applications, discuss with your DuPont customer representative and read Medical Caution H-50103-5.





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