

Hytrel[®] HTR8351 NC021 THERMOPLASTIC POLYESTER ELASTOMER

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® HTR8351 NC021 is a low modulus Hytrel® grade with nominal durometer hardness of 30D. It is a non-discoloring, UV stabilized, plasticizer free resin for extrusion.

Typical applications: Wire and cable jackets.

Product information

Resin Identification Part Marking Code	TPC-ET >TPC-ET<		ISO 1043 ISO 11469
Rheological properties			
Melt mass-flow rate	10	g/10min	ISO 1133
Melt mass-flow rate, Temperature	190		
Melt mass-flow rate, Load	5	kg	
Moulding shrinkage, parallel	0.7	%	ISO 294-4, 2577
Moulding shrinkage, normal	0.5	%	ISO 294-4, 2577
Typical mechanical properties			
Tensile modulus	17	MPa	ISO 527-1/-2
Stress at 5% strain	1.1	MPa	ISO 527-1/-2
Stress at 10% strain	2.4	MPa	ISO 527-1/-2
Tensile stress at 50% strain, 1BA	5.3	MPa	ISO 527-1/-2
Tensile stress at break	9	MPa	ISO 527-1/-2
Tensile strain at break	210	%	ISO 527-1/-2
Charpy notched impact strength, -30 °C	13	kJ/m²	ISO 179/1eA
Charpy notched impact strength, -40 °C	4	kJ/m²	ISO 179/1eA
Shore D hardness, 15s	21		ISO 48-4 / ISO 868
Tear strength, normal	54	kN/m	ISO 34-1
Thermal properties			
Melting temperature, 10°C/min	160	°C	ISO 11357-1/-3
Vicat softening temperature, 50°C/h 10N	47	°C	ISO 306



Hytrel[®] HTR8351 NC021

THERMOPLASTIC POLYESTER ELASTOMER

Flammability FMVSS Class Burning rate, Thickness 1 mm	B <80	mm/min	ISO 3795 (FMVSS 302) ISO 3795 (FMVSS 302)
Physical/Other properties			
Density	1150	kg/m³	ISO 1183
Injection			
Drying Recommended	yes		
Drying Temperature	80	°C	
Drying Time, Dehumidified Dryer	2 - 4	h	
Processing Moisture Content	≤0.08		
Melt Temperature Optimum	190		
Min. melt temperature	180		
Max. melt temperature	200		
Mold Temperature Optimum	30	°C °C	
Min. mould temperature		°C	
Max. mould temperature	40		
Extrusion			
Drying Temperature	80	°C	
Drying Time, Dehumidified Dryer	2 - 3	h	
Processing Moisture Content	≤0.06	%	
Melt Temperature Range	170 - 185	°C	

Characteristics

Special characteristics

Light stabilised or stable to light, U.V. stabilised or stable to weather

Printed: 2025-05-30

Page: 2 of 2

Revised: 2025-04-22 Source: Celanese Materials Database

NOTICE TO USERS: Values shown are based on testing of laboratory test specimens and represent data that fall within the standard range of properties for natural material. These values alone do not represent a sufficient basis for any part design and are not intended for use in establishing maximum, minimum, or ranges of values for specification purposes. Colourants or other additives may cause significant variations in data values. Properties of moulded parts can be influenced by a wide variety of factors including, but not limited to, material selection, additives, part design, processing conditions and environmental exposure. Other than those product expressly identified as medical grade (including by MT® product designation or otherwise), Celanese's products are not intended for use in medical or dental implants. Regardless of any such product designation, any determination of the suitability of a particular material and part design for any use contemplated by the users and the manner of such use is the sole responsibility of the users, who must assure themselves that the material as subsequently processed meets the needs of their particular product or use. To the best of our knowledge, the information contained in this publication is accurate; however, we do not assume any liability whatsoever for the accuracy and completeness of such information. The information contained in this publication as a promise or guarantee of specific properties of our products. It is the sole responsibility of the users to investigate whether any existing patents are infringed by the use of the materials mentioned in this publication. Moreover, there is a need to reduce human exposure to many materials the lowest that texist. We recommend that persons intending to rely on any recommendation or to use any equipment, processing technique or material mentioned in this publication should satisfy themselves that they can meet all applicable safety and health standards. We strongly recommend that users seek and adhere to the manufact

© 2025 Celanese or its affiliates. All rights reserved. Celanese®, registered C-ball design and all other trademarks identified herein with ®, TM, SM, unless otherwise noted, are trademarks of Celanese or its affiliates. Fortron is a registered trademark of Fortron Industries LLC.