



Hytrel® HTR8745 BK320

THERMOPLASTIC POLYESTER ELASTOMER

Hytrel® HTR8745 BK320 is a 45 Shore D, Heat Stabilized, Black, High Performance High Flow Polyester Elastomer with Excellent Fatigue Resistance Developed for Blow Molding

Product information

Resin Identification	TPC-ET	ISO 1043
Part Marking Code	>TPC-ET<	ISO 11469

Rheological properties

Melt mass-flow rate	6.5 g/10min	ISO 1133
Melt mass-flow rate, Temperature	230 °C	ISO 1133
Melt mass-flow rate, Load	10 kg	ISO 1133
Moulding shrinkage, normal	1.8 %	ISO 294-4, 2577

Typical mechanical properties

Tensile Modulus	80 MPa	ISO 527-1/-2
Stress at 5% strain	4 MPa	ISO 527-1/-2
Stress at 10% strain	6.8 MPa	ISO 527-1/-2
Stress at 50% strain	13 MPa	ISO 527-1/-2
Stress at 100% strain	18 MPa	ISO 527-1/-2
Stress at break	34 MPa	ISO 527-1/-2
Nominal strain at break	500 %	ISO 527-1/-2
Strain at break	>300 %	ISO 527-1/-2
Charpy notched impact strength, -30°C	N kJ/m ²	ISO 179/1eA
Charpy notched impact strength, -40°C	N kJ/m ²	ISO 179/1eA
Izod notched impact strength, -40°C	N kJ/m ²	ISO 180/1A
Shore D hardness, 15s	40 -	ISO 48-4
Shore D hardness, max	45 -	ISO 48-4
Tear strength, parallel	120 kN/m	ISO 34-1
Tear strength, normal	120 kN/m	ISO 34-1

Thermal properties

Melting temperature, 10°C/min	203 °C	ISO 11357-1/-3
Vicat softening temperature, 50°C/h 10N	160 °C	ISO 306

Flammability

FMVSS Class	B -	ISO 3795 (FMVSS 302)
Burning rate, Thickness 1 mm	<80 mm/min	ISO 3795 (FMVSS 302)



Hytrel® HTR8745 BK320

THERMOPLASTIC POLYESTER ELASTOMER

Other properties

Density	1140 kg/m ³	ISO 1183
---------	------------------------	----------

Injection

Drying Recommended	yes
Drying Temperature	110 °C
Drying Time, Dehumidified Dryer	2 - 4 h
Processing Moisture Content	≤0.08 %
Melt Temperature Optimum	240 °C
Min. melt temperature	230 °C
Max. melt temperature	250 °C
Mold Temperature Optimum	45 °C
Min. mould temperature	45 °C
Max. mould temperature	55 °C

Extrusion

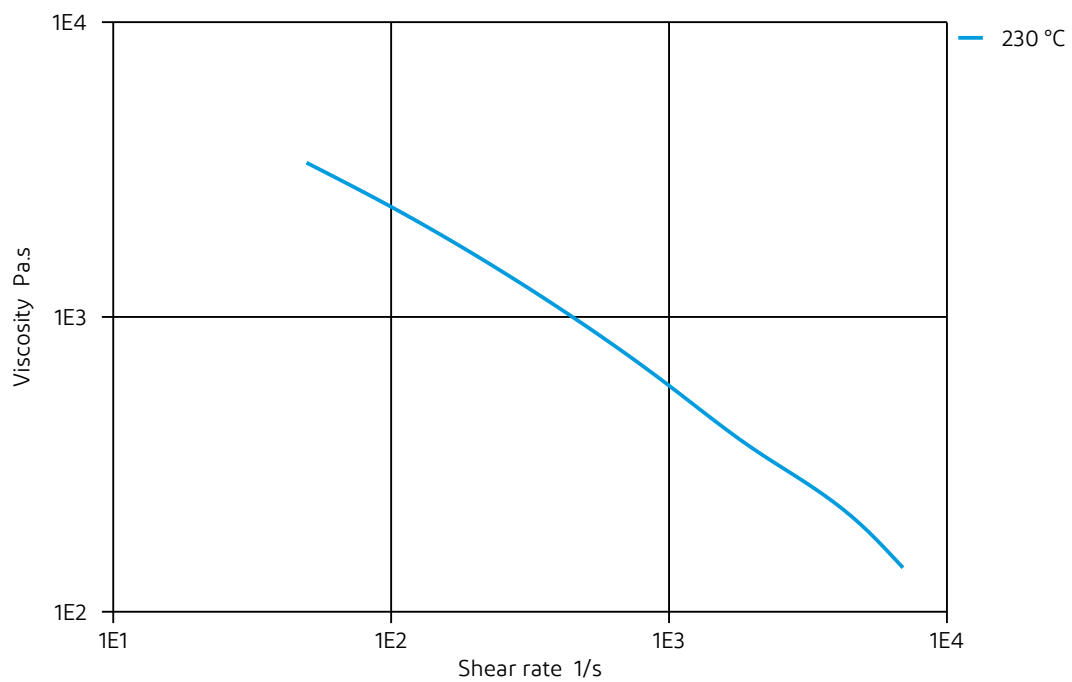
Processing Moisture Content	≤0.06 %
Melt Temperature Optimum	240 °C



Hytrel[®] HTR8745 BK320

THERMOPLASTIC POLYESTER ELASTOMER

Viscosity-shear rate

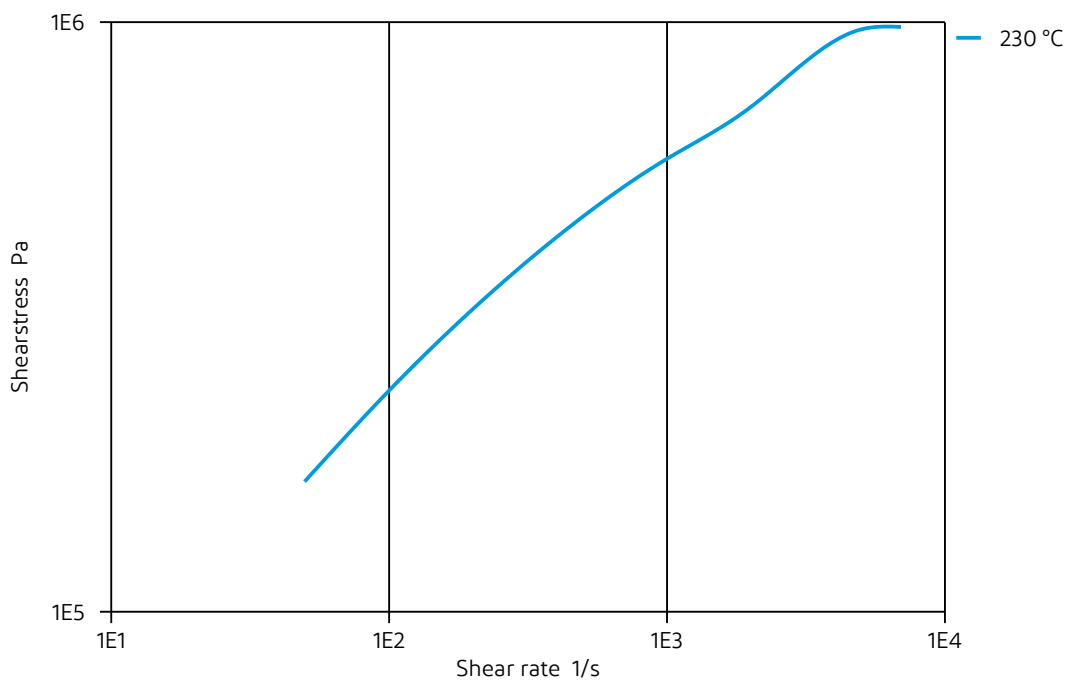




Hytrel[®] HTR8745 BK320

THERMOPLASTIC POLYESTER ELASTOMER

Shearstress-shear rate

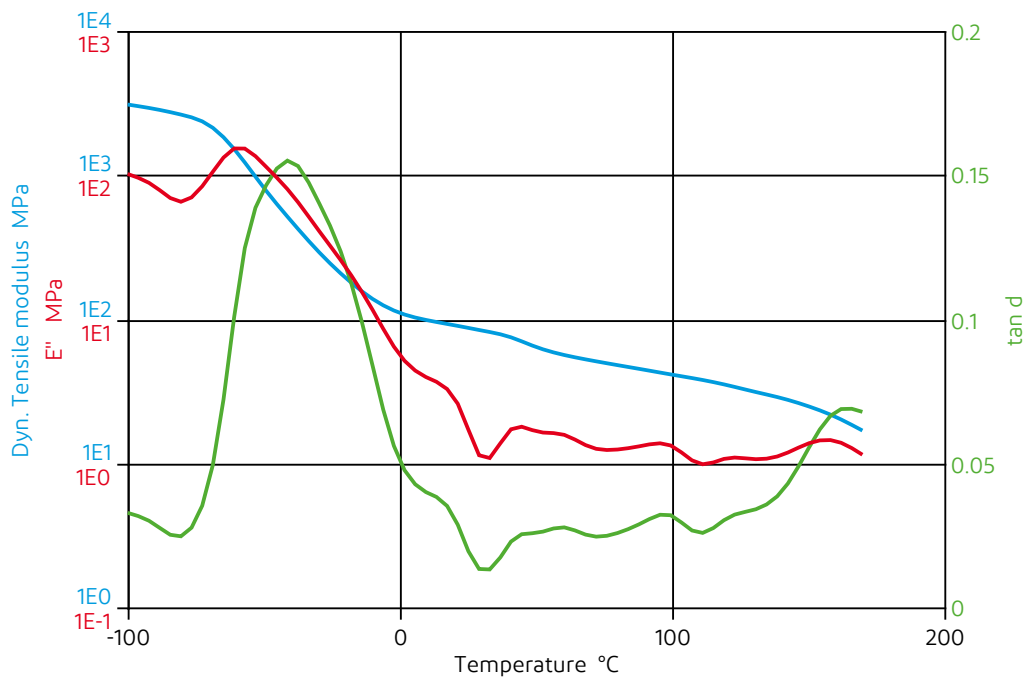




Hytrel[®] HTR8745 BK320

THERMOPLASTIC POLYESTER ELASTOMER

Dynamic Tensile modulus-temperature

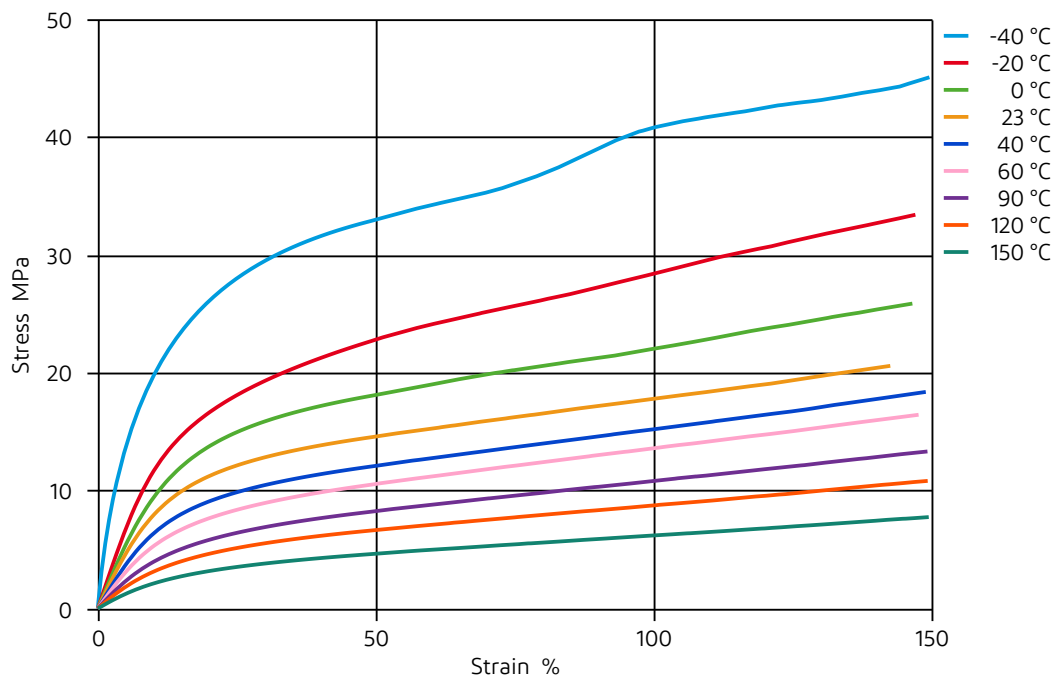




Hytrel[®] HTR8745 BK320

THERMOPLASTIC POLYESTER ELASTOMER

Stress-Strain (Flexible Materials)



The information set forth herein is furnished free of charge, is based on technical data that DuPont believes to be reliable, and represents typical values that fall within the normal range of properties. This information relates only to the specific material designated and may not be valid for such material used in combination with other materials or in other processes. It is intended for use by persons having technical skill, at their own discretion and risk. This information 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 and comply with applicable law. 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 DuPont materials in medical applications involving implantation in the human body or contact with internal body fluids or tissues unless the material has been provided from DuPont under a written contract or other acknowledgement that is consistent with the DuPont policy regarding medical applications and expressly acknowledges the contemplated use. For further information, please contact your DuPont representative.

DuPont's sole warranty is that our products will meet our standard sales specifications in effect at the time of shipment. Your exclusive remedy for breach of such warranty is limited to refund of purchase price or replacement of any product shown to be other than as warranted. TO THE FULLEST EXTENT PERMITTED BY APPLICABLE LAW, DUPONT SPECIFICALLY DISCLAIMS ANY OTHER EXPRESS OR IMPLIED WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE, MERCHANTABILITY, OR NON-INFRINGEMENT. DUPONT DISCLAIMS LIABILITY FOR ANY SPECIAL, INCIDENTAL, OR CONSEQUENTIAL DAMAGES.