

Hytre[®] HTR8745LV BK320 (PRELIMINARY)

THERMOPLASTIC POLYESTER ELASTOMER

Hytre[®] HTR8745LV BK320 is a 43 Shore D, Heat Stabilized, Black, High Performance High Flow Polyester Elastomer with Excellent Fatigue Resistance Developed for Injection Moulding

Product information

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

Rheological properties

Melt mass-flow rate	15 g/10min	ISO 1133
Melt mass-flow rate, Temperature	230 °C	
Melt mass-flow rate, Load	10 kg	
Moulding shrinkage, parallel	1.5 %	ISO 294-4, 2577
Moulding shrinkage, normal	1.5 %	ISO 294-4, 2577
Flow length	160 mm	
Flow length - pressure	180 MPa	
Flow length - width/thickness	1 mm	

[1]: spiral flow

Typical mechanical properties

Tensile Modulus	111 ^[2] MPa	ISO 527-1/-2
Stress at 5% elongation	4.7 MPa	ISO 527-1/-2 or ISO 37
Stress at 10% elongation	8 MPa	ISO 527-1/-2 or ISO 37
Stress at 50% elongation	12.8 MPa	ISO 527-1/-2 or ISO 37
Stress at break	27 MPa	ISO 527-1/-2
Strain at break	>300 %	ISO 527-1/-2
Flexural Modulus	110 MPa	ISO 178
Charpy notched impact strength, -30 °C	100 kJ/m ²	ISO 179/1eA
Charpy notched impact strength, -40 °C	130 kJ/m ²	ISO 179/1eA
Izod notched impact strength, -40 °C	88 kJ/m ²	ISO 180/1A
Shore D hardness, 15s	41	ISO 48-4 / ISO 868
Shore D hardness, max	43	ISO 868
Tear strength, parallel	120 kN/m	ISO 34-1
Tear strength, normal	140 kN/m	ISO 34-1

[2]: Measured with injected 1BA bars at 1 mm/min

[3]: Measured with injected 1BA bars at 50 mm/min



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Thermal properties

Melting temperature, 10°C/min	206 °C	ISO 11357-1/-3
Glass transition temperature, 10°C/min	-45 °C	ISO 11357-1/-3
Freezing temperature, 10°C/min	167 °C	ISO 11357-1/-2
Vicat softening temperature, 50°C/h 10N	170 °C	ISO 306

Flammability

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

Other properties

Density	1150 kg/m³	ISO 1183
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Injection

Drying Recommended	yes	
Drying Temperature	110 °C	
Drying Time, Dehumidified Dryer	2 - 4 ^[4] h	
Processing Moisture Content	≤0.08 %	
Melt Temperature Optimum	240 °C	Internal
Min. melt temperature	240 °C	
Max. melt temperature	260 °C	
Mold Temperature Optimum	40 °C	
Min. mould temperature	40 °C	
Max. mould temperature	70 °C	

[4]: Prolonged drying and multiple drying are not recommended

Extrusion

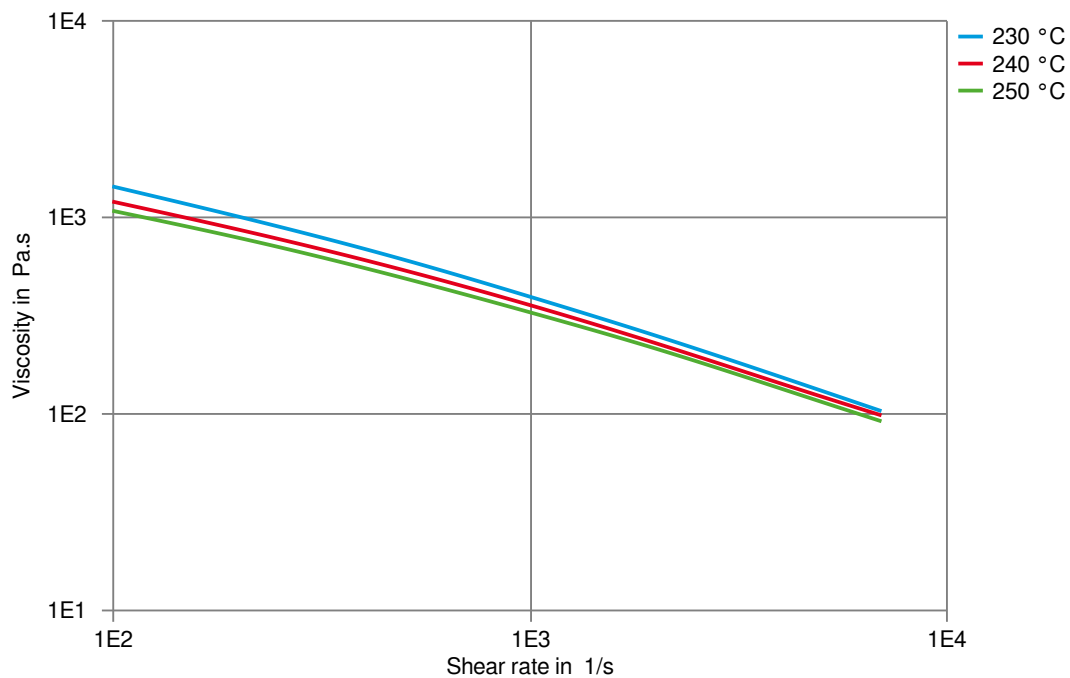
Processing Moisture Content	≤0.06 %
Melt Temperature Optimum	240 °C



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Viscosity-shear rate



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THERMOPLASTIC POLYESTER ELASTOMER

Shearstress-shear rate

