

Product Texts

Unreinforced polybutylene terephthalate compound with increased flexibility and toughness

VESTODUR® HI19 is an unreinforced, semicrystalline resin, based on polybutylene terephthalate with increased flexibility and toughness for the injection molding and extrusion process.

VESTODUR® HI19 is suitable for the manufacture of parts with high mechanical and thermal resistance. The product contains antioxidant agents and processing aids.

VESTODUR® HI19 is supplied as cylindrical pellets in polyethylene packaging.

For information about VESTODUR® HI19, please follow the general recommendations in our flyer "VESTODUR® Polybutylene terephthalate - Compounds".

The use of colorants may affect property values.

Inside the original and undamaged packaging, the product has a shelf life of at least 2 years when stored in dry rooms at temperatures not exceeding 30°C.

The values presented are typical or average values, they do not constitute a specification.

FOR FURTHER INFORMATION PLEASE CONTACT US AT EVONIK-HP@EVONIK.COM
OR VISIT OUR PRODUCT AT WWW.VESTODUR.COM

Processing/Physical Characteristics	dry / cond	Unit	Test Standard
ISO Data			
^[C] Melt volume-flow rate, MVR	12 / *	cm ³ /10min	ISO 1133
Temperature	250 / *	°C	-
Load	2.16 / *	kg	-
^[C] Molding shrinkage, parallel	1.4 / *	%	ISO 294-4, 2577
^[C] Molding shrinkage, normal	1.4 / *	%	ISO 294-4, 2577
^[C] Density of melt	1100	kg/m ³	-
^[C] Thermal conductivity of melt	0.1	W/(m K)	-
^[C] Spec. heat capacity of melt	1900	J/(kg K)	-
^[C] Ejection temperature	190	°C	-

[C]: CAMPUS

Mechanical properties	dry / cond	Unit	Test Standard
ISO Data			
^[C] Tensile Modulus	460 / -	MPa	ISO 527
^[C] Yield stress	27 / -	MPa	ISO 527
^[C] Yield strain	23 / -	%	ISO 527
^[C] Nominal strain at break	>50 / -	%	ISO 527
^[C] Tensile creep modulus, 1h	* / 450	MPa	ISO 899-1
^[C] Tensile creep modulus, 1000h	* / 340	MPa	ISO 899-1
^[C] Charpy impact strength, +23°C	N / -	kJ/m ²	ISO 179/1eU
^[C] Charpy impact strength, -30°C	N / -	kJ/m ²	ISO 179/1eU
^[C] Charpy notched impact strength, +23°C	17 / -	kJ/m ²	ISO 179/1eA
^[C] Type of failure	C / -	-	-
^[C] Charpy notched impact strength, -30°C	8 / -	kJ/m ²	ISO 179/1eA
^[C] Type of failure	C / -	-	-
^[C] Tensile notched impact strength, +23°C	250 / -	kJ/m ²	ISO 8256/1
^[C] Shore D hardness	65 / *	-	ISO 7619-1

[C]: CAMPUS

Thermal properties	dry / cond	Unit	Test Standard
ISO Data			
^[C] Melting temperature, 10°C/min	197 / *	°C	ISO 11357-1/-3
^[C] Glass transition temperature, 10°C/min	2 / *	°C	ISO 11357-1/-2
^[C] Temp. of deflection under load, 1.80 MPa	50 / *	°C	ISO 75-1/-2
^[C] Temp. of deflection under load, 0.45 MPa	110 / *	°C	ISO 75-1/-2
^[C] Vicat softening temperature, B	125 / *	°C	ISO 306
^[C] Coeff. of linear therm. expansion, parallel	150 / *	E-6/K	ISO 11359-1/-2
^[C] Coeff. of linear therm. expansion, normal	150 / *	E-6/K	ISO 11359-1/-2
^[C] Burning Behav. at 1.5 mm nom. thickn.	HB / *	class	IEC 60695-11-10
Thickness tested	1.6 / *	mm	-
^[C] Burning Behav. at thickness h	HB / *	class	IEC 60695-11-10
Thickness tested	0.8 / *	mm	-

[C]: CAMPUS

Electrical properties	dry / cond	Unit	Test Standard
ISO Data			
^[C] Relative permittivity, 100Hz	4 / -	-	IEC 62631-2-1
^[C] Relative permittivity, 1MHz	3.6 / -	-	IEC 62631-2-1
^[C] Dissipation factor, 100Hz	220 / -	E-4	IEC 62631-2-1
^[C] Dissipation factor, 1MHz	330 / -	E-4	IEC 62631-2-1
^[C] Volume resistivity	>1E13 / -	Ohm*m	IEC 62631-3-1
^[C] Surface resistivity	* / 1E14	Ohm	IEC 62631-3-2
^[C] Comparative tracking index	600 / -	-	IEC 60112

[C]: CAMPUS

Other properties	dry / cond	Unit	Test Standard
^[C] Water absorption	0.4 / *	%	Sim. to ISO 62
^[C] Humidity absorption	0.1 / *	%	Sim. to ISO 62
^[C] Density	1260 / -	kg/m ³	ISO 1183

[C]: CAMPUS

Test specimen production	Value	Unit	Test Standard
ISO Data			
^[C] Processing conditions acc. ISO	7792	-	ISO-2
^[C] Injection Molding, melt temperature	260	°C	ISO 294
Injection Molding, mold temperature	80	°C	ISO 294
Injection Molding, injection velocity	200	mm/s	ISO 294
Injection Molding, pressure at hold	70	MPa	ISO 294

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Characteristics

Processing

Injection Molding, Film Extrusion, Profile Extrusion, Other Extrusion, Coating

Delivery form

Pellets

Additives

Release agent

Special Characteristics

High impact or impact modified, U.V. stabilized or stable to weather, Heat stabilized or stable to heat

Features

Thermal Stability

Chemical Resistance

Oxidation Resistance

Regional Availability

North America, Europe, Asia Pacific, South and Central America, Near East/Africa