

Product Texts

Zytel® HTN51G15HSL BK083 is a 15% glass reinforced, heat stabilized, lubricated, hydrolysis resistant high performance polyamide resin. It is also a PPA resin.

Processing/Physical Characteristics	dry / cond	Unit	Test Standard
ISO Data			
^[C] Molding shrinkage, parallel	0.3 / *	%	ISO 294-4, 2577
^[C] Molding shrinkage, normal	0.6 / *	%	ISO 294-4, 2577

[C]: CAMPUS

Mechanical properties	dry / cond	Unit	Test Standard
ISO Data			
^[C] Tensile Modulus	6500 / 6500	MPa	ISO 527
^[C] Stress at break	110 / 110	MPa	ISO 527
^[C] Strain at break	2 / 1.9	%	ISO 527
^[C] Charpy impact strength, +23°C	23 / -	kJ/m ²	ISO 179/1eU
^[C] Charpy notched impact strength, +23°C	5 / -	kJ/m ²	ISO 179/1eA

ASTM Data

Tensile Strength	123 / -	MPa	ASTM D 638
Elongation at Break	2 / -	%	ASTM D 638
Flexural Modulus	6210 / -	MPa	ASTM D 790
Flexural Strength	162 / -	MPa	ASTM D 790
Izod Impact notched, 1/8 in	53 / -	J/m	ASTM D 256

[C]: CAMPUS

Thermal properties	dry / cond	Unit	Test Standard
ISO Data			
^[C] Melting temperature, 10°C/min	304 / *	°C	ISO 11357-1/-3
^[C] Glass transition temperature, 10°C/min	135 / *	°C	ISO 11357-1/-2
^[C] Temp. of deflection under load, 1.80 MPa	250 / *	°C	ISO 75-1/-2
^[C] Temp. of deflection under load, 0.45 MPa	276 / *	°C	ISO 75-1/-2
^[C] Coeff. of linear therm. expansion, parallel	29 / *	E-6/K	ISO 11359-1/-2
^[C] Coeff. of linear therm. expansion, normal	60 / *	E-6/K	ISO 11359-1/-2
^[C] Burning Behav. at 1.5 mm nom. thickn.	HB / *	class	IEC 60695-11-10
Thickness tested	1.5 / *	mm	-
Yellow Card available	yes / *	-	-
^[C] Burning Behav. at thickness h	HB / *	class	IEC 60695-11-10
Thickness tested	0.8 / *	mm	-
Yellow Card available	yes / *	-	-
^[C] Oxygen index	23 / *	%	ISO 4589-1/-2
ASTM Data			
UL 94 Flame rating	HB	-	UL 94
Thickness tested	1.5	mm	-
DTUL @ 264 psi	245	°C	ASTM D 648
Melting Temperature	300	°C	ASTM D 3418

[C]: CAMPUS

Electrical properties	dry / cond	Unit	Test Standard
ISO Data			
^[C] Relative permittivity, 1MHz	3.7 / -	-	IEC 62631-2-1
^[C] Dissipation factor, 1MHz	180 / -	E-4	IEC 62631-2-1
^[C] Volume resistivity	1E13 / -	Ohm*m	IEC 62631-3-1
^[C] Comparative tracking index	575 / -	-	IEC 60112

[C]: CAMPUS

Other properties	dry / cond	Unit	Test Standard
^[C] Density	1300 / -	kg/m ³	ISO 1183
Density	1310	kg/m ³	ASTM D 792

[C]: CAMPUS

Characteristics**Processing**

Injection Molding

Features

Weldable

Delivery form

Black

Chemical Resistance

Hydrolytically Stable

Additives

Lubricants

Regional Availability

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

Special Characteristics

Heat stabilized or stable to heat

Other text information**Injection molding**

During molding, use proper protective equipment and adequate ventilation. Avoid exposure to fumes and limit the hold up time and temperature of the resin in the machine. Purge degraded resin carefully with HDPE.

When lower mold temperatures are used, the initial warpage and shrinkage may be lower, but the surface appearance and chemical resistance may be reduced, and the dimensional change may be greater when parts are subsequently heated.