Zytel® HTN55G55TLW BK117

HIGH PERFORMANCE POLYAMIDE RESIN

Zytel® HTN high performance polyamide resins feature high retention of properties upon exposure to elevated temperature, to high moisture, and to harsh chemical environments. Polymer families and grades of Zytel® HTN are tailored to optimize performance as well as processability.

Typical applications with Zytel® HTN include demanding applications in the automotive, electrical and electronics, domestic appliances, and construction industries.

Zytel® HTN55G55TLW BK117 is a 55% glass reinforced high performance polyamide resin with improved toughness and low warpage, developed for structural applications where good flow is needed in thin sections. It is also a PPA resin.

Product information

Resin Identification	PA-I-GF55		ISO 1043
Part Marking Code	>PA-I-GF55<		ISO 11469
Part Marking Code	>PPA-GF55<		SAE J1344

Rheological properties

	dry/cond.		
Molding shrinkage, parallel	0.1 / -	%	ISO 294-4, 2577
Molding shrinkage, normal	0.2 / -	%	ISO 294-4, 2577

Typical mechanical properties

	dry/cond.		
Tensile modulus	2.76E6 / -	psi	ISO 527-1/-2
Tensile stress at break, 5mm/min	35800 / -	psi	ISO 527-1/-2
Tensile strain at break, 5mm/min	1.8 / -	%	ISO 527-1/-2
Charpy impact strength, 23°C	38.5 / -	ftlb/in²	ISO 179/1eU
Charpy notched impact strength, 23°C	9.04 / -	ftlb/in²	ISO 179/1eA
Charpy notched impact strength, -40°C	9.51 / -	ftlb/in²	ISO 179/1eA

Thermal properties

	dry/cond.		
Melting temperature, 10°C/min	565 / *	°F	ISO 11357-1/-3
Temperature of deflection under load, 1.8 MPa	448 / *	°F	ISO 75-1/-2

Flammability

	dry/cond.		
Burning Behav. at 1.5mm nom. thickn.	HB / *	class	IEC 60695-11-10
UL recognition	yes / *		UL 94
Burning Behav. at thickness h	HB / *	class	IEC 60695-11-10
Thickness tested	0.0295 / *	in	IEC 60695-11-10
UL recognition	yes / *		UL 94
Glow Wire Flammability Index, 0.75mm	1340 / -	°F	IEC 60695-2-12
Glow Wire Flammability Index, 1.5mm	1340 / -	°F	IEC 60695-2-12
Glow Wire Flammability Index, 3.0mm	1760 / -	°F	IEC 60695-2-12
Glow Wire Ignition Temperature, 0.75mm	1380 / -	°F	IEC 60695-2-13
Glow Wire Ignition Temperature, 1.5mm	1380 / -	°F	IEC 60695-2-13
Glow Wire Ignition Temperature, 3.0mm	1560 / -	°F	IEC 60695-2-13
Burning rate, Thickness 1 mm	<80	in/min	ISO 3795 (FMVSS 302)

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Electrical properties

	dry/cond.		
Volume resistivity	>1E13 / -[A]	Ohm.m	IEC 62631-3-1
Comparative tracking index	600 / -		IEC 60112

[A]: Assessed

Physical/Other properties

	dry/cond.		
Humidity absorption, 2mm	1.2 / *	%	Sim. to ISO 62
Water absorption, Immersion 24h	0.6[1] / *	%	Sim. to ISO 62
Density	0.0596 / -	lb/in^3	ISO 1183

[1]: 1mm thickness

Injection

Drying Recommended	yes	
Drying Temperature	212	°F
Drying Time, Dehumidified Dryer	6 - 8	h
Processing Moisture Content	≤0.1	%
Melt Temperature Optimum	608	°F
Min. melt temperature	599	°F
Min. mold temperature	158	°F
Max. mold temperature	266	°F
Hold Pressure Time (h is the max. wall thickness of the part in mm)	h^2+2	s

Characteristics

Processing	Injection Molding
Additives	Release agent
Special characteristics	Heat stabilized or stable to heat, Low Warpage

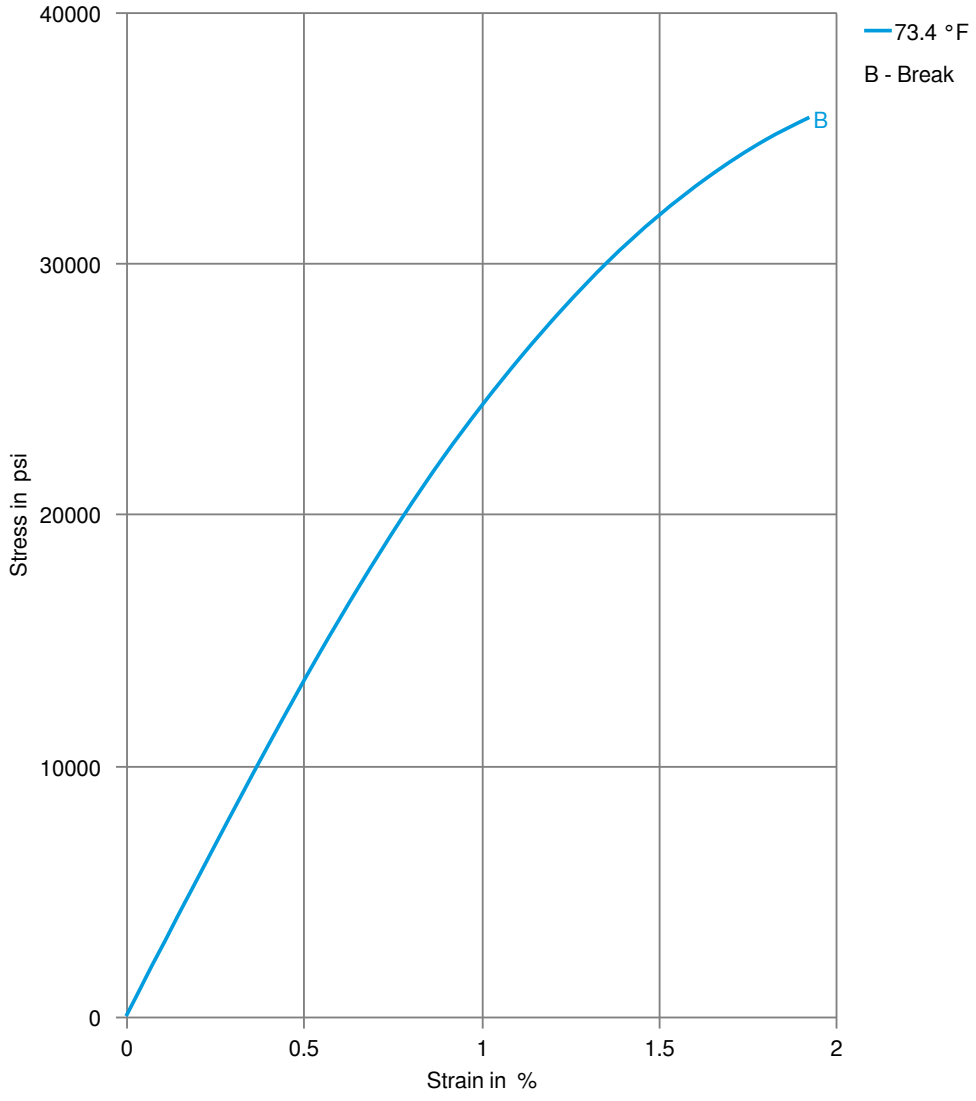
Additional information

Injection molding	Lower end of mold temperature range should be used for parts that are ≤ 1 mm. 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.

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Stress-strain (dry)



Revised: 2026-06-18 Source: Celanese Materials Database

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