Zytel® FR70G25V0GWNH NC010 (DEVELOPMENTAL)

NYLON RESIN

Zytel® FR70G25V0GWNH NC010 is a 25% glass fiber reinforced, heat stabilized, flame retardant polyamide 66 resin with improved GWIT for injection molding. It is halogen and red phosphorous free.

Product information

Resin Identification	PA66-GF25 FR(40)	ISO 1043
Part Marking Code	>PA66-GF25 FR(40)<	ISO 11469

Rheological properties

	dry/cond.		
Viscosity number	3180 / *	in³/lb	ISO 307, 1628
Molding shrinkage, parallel	0.3 / -	%	ISO 294-4, 2577
Molding shrinkage, normal	0.7 / -	%	ISO 294-4, 2577

Typical mechanical properties

	dry/cond.		
Tensile modulus	1.52E6 / -	psi	ISO 527-1/-2
Tensile stress at break, 5mm/min	20300 / -	psi	ISO 527-1/-2
Tensile strain at break, 5mm/min	2 / -	%	ISO 527-1/-2
Charpy impact strength, 23°C	21.4 / -	ftlb/in²	ISO 179/1eU
Charpy impact strength, -40°C	15.7 / -	ftlb/in²	ISO 179/1eU
Charpy notched impact strength, 23°C	3.57 / -	ftlb/in²	ISO 179/1eA
Charpy notched impact strength, -40°C	3 / -	ftlb/in²	ISO 179/1eA

Thermal properties

	dry/cond.		
Melting temperature, 10°C/min	504 / *	°F	ISO 11357-1/-3
Temperature of deflection under load, 1.8 MPa	464 / *	°F	ISO 75-1/-2
Ball pressure test	473 / -	°F	IEC 60695-10-2

Flammability

	dry/cond.		
Burning Behav. at 1.5mm nom. thickn.	V-0 / *	class	IEC 60695-11-10
UL recognition	yes / *		UL 94
Burning Behav. at thickness h	V-0 / *	class	IEC 60695-11-10
Thickness tested	0.0157 / *	in	IEC 60695-11-10
UL recognition	yes / *		UL 94
Glow Wire Flammability Index, 0.4mm	1760 / -	°F	IEC 60695-2-12
Glow Wire Flammability Index, 0.75mm	1760 / -	°F	IEC 60695-2-12
Glow Wire Flammability Index, 1.5mm	1760 / -	°F	IEC 60695-2-12
Glow Wire Flammability Index, 3.0mm	1760 / -	°F	IEC 60695-2-12
Glow Wire Ignition Temperature, 0.75mm	1560 / -	°F	IEC 60695-2-13
Glow Wire Ignition Temperature, 0.4mm	1470 / -	°F	IEC 60695-2-12
Glow Wire Ignition Temperature, 1.5mm	1610 / -	°F	IEC 60695-2-13
Glow Wire Ignition Temperature, 3.0mm	1560 / -	°F	IEC 60695-2-13

Revised: 2026-07-03 Source: Celanese Materials Database

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Electrical properties

	dry/cond.		
Comparative tracking index	600 / -		IEC 60112

Physical/Other properties

	dry/cond.		
Density	0.0516 / -	lb/in³	ISO 1183

Injection

Drying Recommended	yes	
Drying Temperature	176	°F
Drying Time, Dehumidified Dryer	2 - 4	h
Processing Moisture Content	≤0.1	%
Melt Temperature Optimum	536	°F
Min. melt temperature	518	°F
Max. melt temperature	554	°F
Max. screw tangential speed	≤0.2	m/s
Mold Temperature Optimum	212	°F
Min. mold temperature	158	°F
Max. mold temperature	248	°F
Hold pressure range	7250 - 14500	psi
Hold pressure time	0.0762	s/mil
Hold Pressure Time (h is the max. wall thickness of the part in mm)	h^2+2	s
Ejection temperature	410	°F

Characteristics

Processing	Injection Molding
Additives	Flame retardant, Non-halogenated/Red phosphorus free flame retardant
Special characteristics	Flame retardant

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The above data are for the developmental sample and are subject to change as the product is scaled up.
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