Celanese
The chemistry inside innovation™

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.

Rheological properties

	dry/cond.		
Viscosity number	115 / *	cm^3/g	ISO 307, 1628
Moulding shrinkage, parallel	0.3 / -	%	ISO 294-4, 2577
Moulding shrinkage, normal	0.7 / -	%	ISO 294-4, 2577

Typical mechanical properties

	dry/cond.		
Tensile modulus	10500 / -	MPa	ISO 527-1/-2
Tensile stress at break, 5mm/min	140 / -	MPa	ISO 527-1/-2
Tensile strain at break, 5mm/min	2 / -	%	ISO 527-1/-2
Charpy impact strength, 23°C	45 / -	kJ/m^2	ISO 179/1eU
Charpy impact strength, -40°C	33 / -	kJ/m^2	ISO 179/1eU
Charpy notched impact strength, 23°C	7.5 / -	kJ/m^2	ISO 179/1eA
Charpy notched impact strength, -40°C	6.3 / -	kJ/m^2	ISO 179/1eA
Poisson's ratio	0.34 / -		

Thermal properties

	dry/cond.		
Melting temperature, 10°C/min	262 / *	°C	ISO 11357-1/-3
Temperature of deflection under load, 1.8 MPa	240 / *	°C	ISO 75-1/-2
Ball pressure test	245 / -	°C	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	0.4 / *	mm	IEC 60695-11-10
UL recognition	yes / *		UL 94
Glow Wire Flammability Index, 0.4mm	960 / -	°C	IEC 60695-2-12
Glow Wire Flammability Index, 0.75mm	960 / -	°C	IEC 60695-2-12
Glow Wire Flammability Index, 1.5mm	960 / -	°C	IEC 60695-2-12
Glow Wire Flammability Index, 3.0mm	960 / -	°C	IEC 60695-2-12
Glow Wire Ignition Temperature, 0.75mm	775 / -	°C	IEC 60695-2-13
Glow Wire Ignition Temperature, 0.4mm	775 / -	°C	IEC 60695-2-12
Glow Wire Ignition Temperature, 1.5mm	775 / -	°C	IEC 60695-2-13
Glow Wire Ignition Temperature, 3.0mm	775 / -	°C	IEC 60695-2-13

Electrical properties

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

Celanese
The chemistry inside innovation™

Zytel® FR70G25V0GWNH NC010 (DEVELOPMENTAL)
NYLON RESIN

Physical/Other properties

	dry/cond.		
Density	1430 / -	kg/m³	ISO 1183

Injection

Drying Recommended	yes	
Drying Temperature	80	°C
Drying Time, Dehumidified Dryer	2 - 4	h
Processing Moisture Content	≤0.1	%
Melt Temperature Optimum	280	°C
Min. melt temperature	270	°C
Max. melt temperature	290	°C
Screw tangential speed	≤0.2	m/s
Mold Temperature Optimum	100	°C
Min. mould temperature	70	°C
Max. mould temperature	120	°C
Hold pressure range	50 - 100	MPa
Hold pressure time	3	s/mm
Ejection temperature	210	°C

Characteristics

Processing	Injection Moulding
Delivery form	Pellets
Additives	Flame retardant, Non-halogenated/Red phosphorous free flame retardant
Special characteristics	Flame retardant