Stanyl®

Stanyl® TE250F9

PA46-GF45 FR(17)

45% Glass Reinforced, Heat Stabilized, Flame Retardant

Print Date: 2022-07-28

Stanyl® TE250F9 is an electro-friendly & flame-retarded high heat polyamide that offers excellent creep resistance, strength, stiffness and fatigue resistance especially at high temperatures in combination with cycle-time advantages and excellent flow.

Properties	Typical Data	Unit	Test Method
Rheological properties	dry / cond		
Molding shrinkage [parallel]	0.3 / *	%	Sim. to ISO 294-4
Molding shrinkage [normal]	0.9 / *	%	Sim. to ISO 294-4
Mechanical properties	dry / cond		
Tensile modulus	17000 / 11000	MPa	ISO 527-1/-2
Tensile modulus (120°C)	9000 / -	MPa	ISO 527-1/-2
Tensile modulus (160°C)	7700	MPa	ISO 527-1/-2
Stress at break	200 / 130	MPa	ISO 527-1/-2
Stress at break (120°C)	110 / -	MPa	ISO 527-1/-2
Stress at break (160°C)	90	MPa	ISO 527-1/-2
Strain at break	2.2 / 4	%	ISO 527-1/-2
Strain at break (120°C)	4.5 / -	%	ISO 527-1/-2
Strain at break (160°C)	5.5	%	ISO 527-1/-2
Flexural modulus	15000 / 11000	MPa	ISO 178
Flexural modulus (120°C)	10500	MPa	ISO 178
Flexural modulus (160°C)	9000	MPa	ISO 178
Flexural strength	300 / 250	MPa	ISO 178
Flexural strength (120°C)	230	MPa	ISO 178
Flexural strength (160°C)	200	MPa	ISO 178
Charpy impact strength (+23°C)	65 / 75	kJ/m²	ISO 179/1eU
Charpy impact strength (-30°C)	50 / 50	kJ/m²	ISO 179/1eU

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Properties	Typical Data	Unit	Test Method
Charpy notched impact strength (+23°C)	14 / 15	kJ/m²	ISO 179/1eA
Charpy notched impact strength (-30°C)	13 / 13	kJ/m²	ISO 179/1eA
Izod notched impact strength (+23°C)	13 / 15	kJ/m²	ISO 180/1A
Izod notched impact strength (-40°C)	13 / 13	kJ/m²	ISO 180/1A
Thermal properties	dry / cond		
Melting temperature (10°C/min)	295 / *	°C	ISO 11357-1/-3
Temp. of deflection under load (1.80 MPa)	290 / *	°C	ISO 75-1/-2
Temp. of deflection under load (0.45 MPa)	290 / *	°C	ISO 75-1/-2
Coeff. of linear therm. expansion (parallel)	0.2 / *	E-4/°C	ISO 11359-1/-2
Coeff. of linear therm. expansion (normal)	0.45 / *	E-4/°C	ISO 11359-1/-2
Burning Behav. at 1.5 mm nom. thickn.	V-0 / *	class	IEC 60695-11-10
Thickness tested	1.5 / *	mm	IEC 60695-11-10
UL recognition	Yes / *	-	-
Burning Behav. at 3.0 mm nom. thickn.	V-0 / *	class	IEC 60695-11-10
Thickness tested	3 / *	mm	IEC 60695-11-10
UL recognition	Yes / *	-	-
Relative Temperature Index - electrical	140	°C	UL746B
RTI electrical (Thickness (1) tested)	0.75	mm	UL746B
Thermal Index 5000 hrs	163	°C	IEC 60216/ISO 527-1/-2
Electrical properties	dry / cond		
Volume resistivity	1E13 / 1E8	Ohm*m	IEC 62631-3-1
Electric strength	30 / 20	kV/mm	IEC 60243-1
Comparative tracking index	250 / -	V	IEC 60112
Relative permittivity (100Hz)	4.3 / 12	-	IEC 62631-2-1
Relative permittivity (1 MHz)	4 / 4.5	-	IEC 62631-2-1
Other properties	dry / cond		
Humidity absorption	1.2 / *	%	Sim. to ISO 62

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Density	1820 / -	kg/m³	ISO 1183