

Stanyl® TW250F6

PA46-GF30 FR(17)

30% Glass Reinforced, Heat Stabilized, Flame Retardant

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Properties	Typical Data	Unit	Test Method
Rheological properties			
	dry / cond		
Molding shrinkage [parallel]	0.4 / *	%	Sim. to ISO 294-4
Molding shrinkage [normal]	1.1 / *	%	Sim. to ISO 294-4
Mechanical properties			
	dry / cond		
Tensile modulus	12000 / 8000	MPa	ISO 527-1/-2
Tensile modulus (120°C)	7500 / -	MPa	ISO 527-1/-2
Tensile modulus (160°C)	6200	MPa	ISO 527-1/-2
Stress at break	180 / 125	MPa	ISO 527-1/-2
Stress at break (120°C)	105 / -	MPa	ISO 527-1/-2
Stress at break (160°C)	95	MPa	ISO 527-1/-2
Strain at break	2.5 / 3.5	%	ISO 527-1/-2
Strain at break (120°C)	4 / -	%	ISO 527-1/-2
Strain at break (160°C)	4	%	ISO 527-1/-2
Flexural modulus	11000 / 7300	MPa	ISO 178
Flexural modulus (120°C)	6500	MPa	ISO 178
Flexural modulus (160°C)	5000	MPa	ISO 178
Charpy impact strength (+23°C)	60 / 60	kJ/m ²	ISO 179/1eU
Charpy impact strength (-30°C)	50 / 50	kJ/m ²	ISO 179/1eU
Charpy notched impact strength (+23°C)	11 / 11	kJ/m ²	ISO 179/1eA
Charpy notched impact strength (-30°C)	10 / 10	kJ/m ²	ISO 179/1eA
Izod notched impact strength (+23°C)	11 / 11	kJ/m ²	ISO 180/1A
Izod notched impact strength (-40°C)	11 / 11	kJ/m ²	ISO 180/1A

Properties	Typical Data	Unit	Test Method
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)	0.25 / *	E-4/°C	ISO 11359-1/-2
Coeff. of linear therm. expansion (normal)	0.55 / *	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 thickness h	V-0 / *	class	IEC 60695-11-10
Thickness tested	0.75 / *	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	177	°C	IEC 60216/ISO 527-1/-2
Electrical properties dry / cond			
Volume resistivity	1E12 / 1000000	Ohm*m	IEC 60093
Electric strength	30 / -	kV/mm	IEC 60243-1
Comparative tracking index	175 / -	V	IEC 60112
Other properties dry / cond			
Humidity absorption	1.6 / *	%	Sim. to ISO 62
Density	1680 / -	kg/m ³	ISO 1183