

Stanyl® TW271F6

(PA46+PTFE)-GF30

30% Glass Reinforced, Heat Stabilized, Wear and Friction Modified

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Properties	Typical Data	Unit	Test Method
Rheological properties			
	dry / cond		
Molding shrinkage [parallel]	0.5 / *	%	Sim. to ISO 294-4
Molding shrinkage [normal]	1.3 / *	%	Sim. to ISO 294-4
Mechanical properties			
	dry / cond		
Tensile modulus	10000 / 6000	MPa	ISO 527-1/-2
Tensile modulus (120°C)	5250 / -	MPa	ISO 527-1/-2
Tensile modulus (160°C)	4750	MPa	ISO 527-1/-2
Tensile modulus (180°C)	4500	MPa	ISO 527-1/-2
Tensile modulus (200°C)	4250	MPa	ISO 527-1/-2
Stress at break	190 / 105	MPa	ISO 527-1/-2
Stress at break (120°C)	100 / -	MPa	ISO 527-1/-2
Stress at break (160°C)	85	MPa	ISO 527-1/-2
Stress at break (180°C)	80	MPa	ISO 527-1/-2
Stress at break (200°C)	75	MPa	ISO 527-1/-2
Strain at break	3.5 / 6.5	%	ISO 527-1/-2
Strain at break (120°C)	6.5 / -	%	ISO 527-1/-2
Strain at break (160°C)	6.5	%	ISO 527-1/-2
Strain at break (180°C)	6.5	%	ISO 527-1/-2
Strain at break (200°C)	6.5	%	ISO 527-1/-2
Flexural modulus	8500 / 5700	MPa	ISO 178
Flexural strength	280 / -	MPa	ISO 178
Charpy impact strength (+23°C)	85 / 90	kJ/m ²	ISO 179/1eU
Charpy impact strength (-30°C)	65 / 70	kJ/m ²	ISO 179/1eU

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Charpy notched impact strength (+23°C)	13 / 17	kJ/m ²	ISO 179/1eA
Charpy notched impact strength (-30°C)	11 / 11	kJ/m ²	ISO 179/1eA
Izod notched impact strength (+23°C)	13 / 17	kJ/m ²	ISO 180/1A
Izod notched impact strength (-40°C)	11 / 11	kJ/m ²	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)	0.25 / *	E-4/°C	ISO 11359-1/-2
Coeff. of linear therm. expansion (normal)	0.6 / *	E-4/°C	ISO 11359-1/-2
Burning Behav. at 1.5 mm nom. thickn.	HB / *	class	IEC 60695-11-10
Thickness tested	1.6 / *	mm	IEC 60695-11-10
Burning Behav. at thickness h	HB / *	class	IEC 60695-11-10
Thickness tested	0.75 / *	mm	IEC 60695-11-10
Thermal Index 5000 hrs	177	°C	IEC 60216/ISO 527-1/-2

Electrical properties

dry / cond

Volume resistivity	1E12 / 1E7	Ohm*m	IEC 60093
Comparative tracking index	400 / -	V	IEC 60112

Other properties

dry / cond

Humidity absorption	2 / *	%	Sim. to ISO 62
Density	1540 / -	kg/m ³	ISO 1183

