

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
Charpy impact strength (+23 °C)	85/90	kJ/m ²	ISO 179/1eU

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Properties	Typical Data	Unit	Test Method
Charpy impact strength (-30°C)	65/70	kJ/m ²	ISO 179/1eU
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/-	-	IEC 60112
Other properties dry / cond			
Humidity absorption	2/*	%	Sim. to ISO 62
Density	1540/-	kg/m ³	ISO 1183

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