Stanyl®

Stanyl® TW241F6

PA46-GF30

30% Glass Reinforced, Heat Stabilized, Lubricated

Print Date: 2019-07-05

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)	5500 / -	MPa	ISO 527-1/-2
Tensile modulus (160°C)	5000	MPa	ISO 527-1/-2
Tensile modulus (180°C)	4400	MPa	ISO 527-1/-2
Tensile modulus (200°C)	4000	MPa	ISO 527-1/-2
Stress at break	210 / 115	MPa	ISO 527-1/-2
Stress at break (120°C)	110 / -	MPa	ISO 527-1/-2
Stress at break (160°C)	100	MPa	ISO 527-1/-2
Stress at break (180°C)	95	MPa	ISO 527-1/-2
Stress at break (200°C)	90	MPa	ISO 527-1/-2
Strain at break	4 / 7	%	ISO 527-1/-2
Strain at break (120°C)	7.5 / -	%	ISO 527-1/-2
Strain at break (160°C)	7.5	%	ISO 527-1/-2
Strain at break (180°C)	7.5	%	ISO 527-1/-2
Strain at break (200°C)	7.5	%	ISO 527-1/-2
Flexural modulus	9000 / 5500	MPa	ISO 178
Flexural modulus (120°C)	4700	MPa	ISO 178
Flexural modulus (160°C)	3900	MPa	ISO 178
Flexural strength	300 / 180	MPa	ISO 178

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Flexural strength (120°C)	160	MPa	ISO 178
Flexural strength (160°C)	130	MPa	ISO 178
Charpy impact strength (+23°C)	80 / 100	kJ/m²	ISO 179/1eU
Charpy impact strength (-30°C)	65 / 75	kJ/m²	ISO 179/1eU
Charpy notched impact strength (+23°C)	12 / 21	kJ/m²	ISO 179/1eA
Charpy notched impact strength (-30°C)	11 / 11	kJ/m²	ISO 179/1eA
Izod notched impact strength (+23°C)	12 / 21	kJ/m²	ISO 180/1A
Izod notched impact strength (-40°C)	11 / 11	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)	0.25 / *	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	1.5 / *	mm	IEC 60695-11-10
UL recognition	Yes / *	-	-
Burning Behav. at thickness h	HB / *	class	IEC 60695-11-10
Thickness tested	0.75 / *	mm	IEC 60695-11-10
UL recognition	Yes / *	-	-
Relative Temperature Index - electrical	65	°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 / 1E7	Ohm*m	IEC 60093
Electric strength	30 / 20	kV/mm	IEC 60243-1
Comparative tracking index	300 / -	V	IEC 60112
Relative permittivity (100Hz)	4.3 / 16	-	IEC 60250

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Relative permittivity (1 MHz)	4 / 4.7	-	IEC 60250
Other properties	dry / cond		
Humidity absorption	2.6 / *	%	Sim. to ISO 62
Density	1410 / -	kg/m³	ISO 1183

Tens. fatigue 8Hz, T, R=0.1 , dry