Stanyl®

Stanyl® TE250F8

PA46-GF40 FR(17)

40% Glass Reinforced, Heat Stabilized, Flame Retardant

Print Date: 2019-04-09

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	15000 / 12000	MPa	ISO 527-1/-2
Tensile modulus (120°C)	9500 / -	MPa	ISO 527-1/-2
Tensile modulus (160°C)	6500	MPa	ISO 527-1/-2
Stress at break	180 / 130	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
Strain at break	1.9 / 2.5	%	ISO 527-1/-2
Strain at break (120°C)	3 / -	%	ISO 527-1/-2
Strain at break (160°C)	3	%	ISO 527-1/-2
Flexural modulus	13000 / 11000	MPa	ISO 178
Flexural modulus (120°C)	8500	MPa	ISO 178
Flexural modulus (160°C)	5500	MPa	ISO 178
Charpy impact strength (+23°C)	50 / 50	kJ/m²	ISO 179/1eU
Charpy impact strength (-30°C)	40 / 40	kJ/m²	ISO 179/1eU
Charpy notched impact strength (+23°C)	13 / 14	kJ/m²	ISO 179/1eA
Charpy notched impact strength (-30°C)	13 / 13	kJ/m²	ISO 179/1eA
Izod notched impact strength (+23°C)	14 / 15	kJ/m²	ISO 180/1A
Izod notched impact strength (-40°C)	14 / 14	kJ/m²	ISO 180/1A

Property Data

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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)	0.5 / *	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	0.35 / *	mm	IEC 60695-11-10
UL recognition	Yes / *	-	-
Relative Temperature Index - electrical	130	°C	UL746B
RTI electrical (Thickness (1) tested)	0.35	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 60093
Electric strength	30 / 20	kV/mm	IEC 60243-1
Comparative tracking index	325 / -	V	IEC 60112
Relative permittivity (100Hz)	4.3 / 12	-	IEC 60250
Relative permittivity (1 MHz)	4 / 4.5	-	IEC 60250
Relative permittivity (1GHz)	3.6 / 3.8	-	IEC 60250
Other properties	dry / cond		
Humidity absorption	1.3 / *	%	Sim. to ISO 62
Density	1770 / -	kg/m³	ISO 1183