

Stanyl® 46HF4530

PA46-GF30

30% Glass Reinforced, Heat Stabilized, High Flow, for E&E applications

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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)	5500 / -	MPa	ISO 527-1/-2
Tensile modulus (160°C)	5000	MPa	ISO 527-1/-2
Tensile modulus (180°C)	4700	MPa	ISO 527-1/-2
Tensile modulus (200°C)	4500	MPa	ISO 527-1/-2
Stress at break	210 / 115	MPa	ISO 527-1/-2
Stress at break (120°C)	125 / -	MPa	ISO 527-1/-2
Stress at break (160°C)	110	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	3 / 6	%	ISO 527-1/-2
Strain at break (120°C)	5.5 / -	%	ISO 527-1/-2
Strain at break (160°C)	5.5	%	ISO 527-1/-2
Strain at break (180°C)	5.5	%	ISO 527-1/-2
Strain at break (200°C)	5.5	%	ISO 527-1/-2
Flexural modulus	9000 / 5500	MPa	ISO 178
Charpy impact strength (+23°C)	60 / 90	kJ/m ²	ISO 179/1eU
Charpy impact strength (-30°C)	60 / 60	kJ/m ²	ISO 179/1eU
Charpy notched impact strength (+23°C)	13 / 17	kJ/m ²	ISO 179/1eA

Properties	Typical Data	Unit	Test Method
Charpy notched impact strength (-30°C)	12 / 12	kJ/m ²	ISO 179/1eA
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
Burning Behav. at thickness h	HB / *	class	IEC 60695-11-10
Thickness tested	0.75 / *	mm	IEC 60695-11-10
Relative Temperature Index - electrical	65	°C	UL746B
RTI electrical (Thickness (1) tested)	0.75	mm	UL746B
Electrical properties dry / cond			
Volume resistivity	1E13 / 1E9	Ohm*m	IEC 60093
Electric strength	30 / 25	kV/mm	IEC 60243-1
Comparative tracking index	550 / -	V	IEC 60112
Relative permittivity (100Hz)	4.4 / 12	-	IEC 60250
Relative permittivity (1 MHz)	4 / 4.6	-	IEC 60250
Relative permittivity (1GHz)	3.6 / -	-	IEC 60250
Other properties dry / cond			
Humidity absorption	2.6 / *	%	Sim. to ISO 62
Density	1410 / -	kg/m ³	ISO 1183