

Stanyl® 46HF5050

PA46-GF50 FR(17)

50% Glass Reinforced, Heat Stabilized, Flame Retardant, High Flow

Properties	Typical Data	Unit	Test Method
Rheological properties			
	dry / cond		
Molding shrinkage [parallel]	0.3 / *	%	Sim. to ISO 294-4
Molding shrinkage [normal]	0.7 / *	%	Sim. to ISO 294-4
Mechanical properties			
	dry / cond		
Tensile modulus	18000 / 15000	MPa	ISO 527-1/-2
Stress at break	200 / 135	MPa	ISO 527-1/-2
Strain at break	1.5 / 2.3	%	ISO 527-1/-2
Flexural modulus	16000 / 14000	MPa	ISO 178
Flexural strength	315 / 260	MPa	ISO 178
Charpy impact strength (+23°C)	40 / 45	kJ/m ²	ISO 179/1eU
Charpy impact strength (-30°C)	40 / 40	kJ/m ²	ISO 179/1eU
Charpy notched impact strength (+23°C)	15 / 15	kJ/m ²	ISO 179/1eA
Charpy notched impact strength (-30°C)	15 / 15	kJ/m ²	ISO 179/1eA
Izod notched impact strength (+23°C)	18 / 18	kJ/m ²	ISO 180/1A
Izod notched impact strength (-40°C)	18 / 18	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)	0.2 / *	E-4/°C	ISO 11359-1/-2
Coeff. of linear therm. expansion (normal)	0.3 / *	E-4/°C	ISO 11359-1/-2
Burning Behav. at 1.5 mm nom. thickn.	V-0 / *	class	IEC 60695-11-10



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Properties	Typical Data	Unit	Test Method
Thickness tested	1.5 / *	mm	IEC 60695-11-10
UL recognition	Yes / *	-	-
Burning Behav. at 3.0 mm nom. thickn.	V-0 / *	class	IEC 60695-11-10
Thickness tested	3 / *	mm	IEC 60695-11-10
UL recognition	Yes / *	-	-
Relative Temperature Index - electrical	65	°C	UL746B
RTI electrical (Thickness (1) tested)	0.4	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 62631-3-1
Electric strength	30 / 20	kV/mm	IEC 60243-1
Comparative tracking index	350 / -	V	IEC 60112
Relative permittivity (100Hz)	4.3 / -	-	IEC 62631-2-1
Relative permittivity (1 MHz)	4 / -	-	IEC 62631-2-1

Other properties

dry / cond

Humidity absorption	1.2 / *	%	Sim. to ISO 62
Density	1870 / -	kg/m ³	ISO 1183

