Stanyl® 46HF4550

PA46-GF50 DSM Engineering Plastics

Product Texts

50% Glass Reinforced, Heat Stabilized, High Flow, for E&E applications

ISO 1043 PA46-GF50

Stanyl website

Mechanical properties	dry / cond	Unit	Test Standard
ISO Data			
Tensile Modulus	16000 / 11000	MPa	ISO 527-1/-2
Stress at break	250 / 170	MPa	ISO 527-1/-2
Strain at break	2.2 / 3.5	%	ISO 527-1/-2
Charpy impact strength (+23°C)	80 / 100	kJ/m²	ISO 179/1eU
Charpy impact strength, -30°C	70 / 70	kJ/m²	ISO 179/1eU
Charpy notched impact strength (+23°C)	15 / 18	kJ/m²	ISO 179/1eA
Charpy notched impact strength, -30°C	15 / 15	kJ/m²	ISO 179/1eA

Thermal properties	dry / cond	Unit	Test Standard
ISO Data			
Melting temperature (10°C/min)	295 / *	°C	ISO 11357-1/-3
Glass transition temperature, 10°C/min	75 / *	°C	ISO 11357-1/-2
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
Vicat softening temperature, 50°C/h 50N	290 / *	°C	ISO 306
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	UL / *	-	-
Burning behav. at thickness h	HB / *	class	IEC 60695-11-10
Thickness tested	0.8 / *	mm	IEC 60695-11-10
UL recognition	UL / *	-	-

Electrical properties	dry / cond	Unit	Test Standard
ISO Data			
Relative permittivity, 100Hz	4.4 / 12	-	IEC 60250
Relative permittivity, 1MHz	4 / 4.6	-	IEC 60250
Dissipation factor, 100Hz	80 / 1500	E-4	IEC 60250
Dissipation factor, 1MHz	230 / 900	E-4	IEC 60250
Volume resistivity	1E13 / 1E9	Ohm*m	IEC 60093
Surface resistivity	* / 1E14	Ohm	IEC 60093
Electric strength	30 / 25	kV/mm	IEC 60243-1
Comparative tracking index	450 / -	-	IEC 60112

Other properties	dry / cond	Unit	Test Standard
ISO Data			
Water absorption	6.75 / *	%	Sim. to ISO 62
Humidity absorption	1.85 / *	%	Sim. to ISO 62
Density	1620 / -	kg/m³	ISO 1183

Material specific properties	dry / cond	Unit	Test Standard
ISO Data			
Viscosity number	75 / *	cm³/g	ISO 307, 1157, 1628

Characteristics

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Processing
Injection Molding

Delivery form
Pellets

Additives
Lubricants, Release agent

Special Characteristics
Heat stabilized or stable to heat

Other text information

Injection Molding
Injection Molding Recommendations