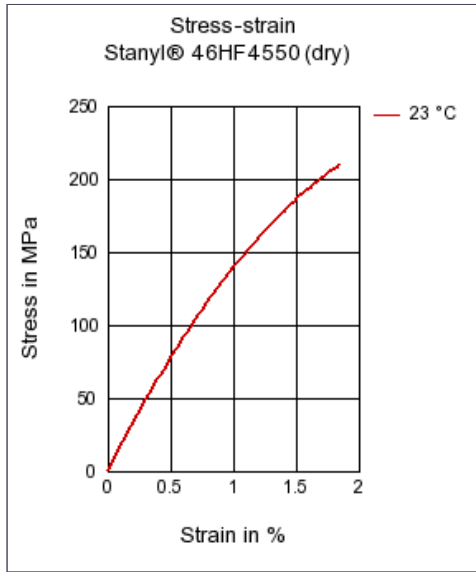




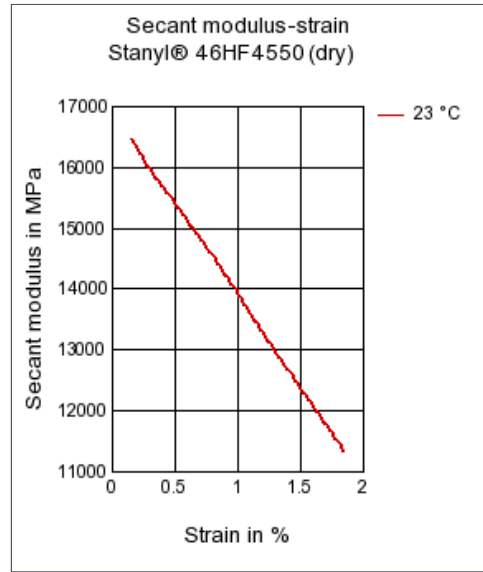
Stanyl® 46HF4550			
PA46-GF50			Envalior
Product Texts			
50% Glass Reinforced, Heat Stabilized, High Flow, for E&E applications			
ISO 1043 PA46-GF50			
Mechanical properties	dry / cond	Unit	Test Standard
ISO Data			
Tensile Modulus	16000 / 11000	MPa	ISO 527
Stress at break	250 / 170	MPa	ISO 527
Strain at break	2.2 / 3.5	%	ISO 527
Charpy impact strength, +23°C	80 / 100	kJ/m ²	ISO 179/1eU
Charpy impact strength, -30°C	70 / 70	kJ/m ²	ISO 179/1eU
Charpy notched impact strength, +23°C	15 / 18	kJ/m ²	ISO 179/1eA
Charpy notched impact strength, -30°C	15 / 15	kJ/m ²	ISO 179/1eA
Thermal properties			
ISO Data	dry / cond	Unit	Test Standard
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
Coeff. of linear therm. expansion, parallel	10 / *	E-6/K	ISO 11359-1/-2
Coeff. of linear therm. expansion, normal	110 / *	E-6/K	ISO 11359-1/-2
Burning behav. at 1.5 mm nom. thickn.	HB / *	class	IEC 60695-11-10
Thickness tested	1.5 / *	mm	-
Yellow Card available	yes / *	-	-
Burning behav. at thickness h	HB / *	class	IEC 60695-11-10
Thickness tested	3.0 / *	mm	-
Yellow Card available	yes / *	-	-
Electrical properties			
ISO Data	dry / cond	Unit	Test Standard
Relative permittivity, 100Hz	4.4 / 12	-	IEC 62631-2-1
Relative permittivity, 1MHz	4 / 4.6	-	IEC 62631-2-1
Dissipation factor, 100Hz	80 / 1500	E-4	IEC 62631-2-1
Dissipation factor, 1MHz	230 / 900	E-4	IEC 62631-2-1
Volume resistivity	1E13 / 1E9	Ohm*m	IEC 62631-3-1
Surface resistivity	* / 1E14	Ohm	IEC 62631-3-2
Electric strength	30 / 25	kV/mm	IEC 60243-1
Comparative tracking index	450 / -	-	IEC 60112
Other properties			
ISO Data	dry / cond	Unit	Test Standard
Water absorption	6.75 / *	%	Sim. to ISO 62
Humidity absorption	1.85 / *	%	Sim. to ISO 62
Density	1620 / -	kg/m ³	ISO 1183
Material specific properties			
ISO Data	dry / cond	Unit	Test Standard
Viscosity number	75 / *	cm ³ /g	ISO 307, 1157, 1628

Diagrams

Stress-strain



Secant modulus-strain



Characteristics

Processing

Injection Molding

Additives

Lubricants, Release agent

Delivery form

Pellets

Special Characteristics

Heat stabilized or stable to heat

Other text information

Injection Molding

[Injection Molding Recommendations](#)

[Hot runner recommendations for molding high heat performance Engineering Materials](#)

[Steel recommendations for molds screws and barrels](#)

[Supporting document for Stanyl quality processing](#)

[Trouble shooting guideline for injection molding](#)

Chemical Media Resistance

Alcohols

😊 Ethanol (23 °C)

Hydrocarbons

😊 Toluene (23 °C)

Ketones

😊 Acetone (23 °C)

Ethers

😊 Diethyl ether (23 °C)

Other

😊 Ethyl Acetate (23 °C)

😊 Water (23 °C)