

Product Texts

20% Glass Reinforced, High Flow, Halogen free and free of red phosphorous

ISO 1043 PA46-GF20 FR(40)

Stanyl® HFX33S is an electro-friendly & halogen-free flame-retarded high heat polyamide that offers an excellent combination of high CTI, flow and weld-line strength. HFX-grades are often used in connectors such as USB type C.

Processing/Physical Characteristics	dry / cond	Unit	Test Standard
ISO Data			
^[C] Molding shrinkage, parallel	0.4 / *	%	ISO 294-4, 2577
^[C] Molding shrinkage, normal	1.5 / *	%	ISO 294-4, 2577

[C]: CAMPUS

Mechanical properties	dry / cond	Unit	Test Standard
ISO Data			
^[C] Tensile Modulus	7800 / 4800	MPa	ISO 527
^[C] Stress at break	120 / 80	MPa	ISO 527
^[C] Strain at break	2.8 / 4	%	ISO 527
^[C] Charpy impact strength, +23°C	37 / 51	kJ/m ²	ISO 179/1eU
^[C] Charpy notched impact strength, +23°C	7.5 / -	kJ/m ²	ISO 179/1eA

[C]: CAMPUS

Thermal properties	dry / cond	Unit	Test Standard
ISO Data			
^[C] Melting temperature, 10°C/min	295 / *	°C	ISO 11357-1/-3
^[C] Glass transition temperature, 10°C/min	75 / *	°C	ISO 11357-1/-2
^[C] Temp. of deflection under load, 1.80 MPa	276 / *	°C	ISO 75-1/-2
^[C] Temp. of deflection under load, 0.45 MPa	284 / *	°C	ISO 75-1/-2
^[C] Burning Behav. at thickness h	V-0 / *	class	IEC 60695-11-10
Thickness tested	3.0 / *	mm	-
Yellow Card available	yes / *	-	-

[C]: CAMPUS

Electrical properties	dry / cond	Unit	Test Standard
ISO Data			
^[C] Electric strength	30 / -	kV/mm	IEC 60243-1
^[C] Comparative tracking index	500 / -	-	IEC 60112

[C]: CAMPUS

Other properties	dry / cond	Unit	Test Standard
^[C] Humidity absorption	2.8 / *	%	Sim. to ISO 62
^[C] Density	1370 / -	kg/m ³	ISO 1183

[C]: CAMPUS

Characteristics

Processing

Injection Molding

Special Characteristics

Flame retardant

Delivery form

Pellets

Regional Availability

North America, Europe, Asia Pacific

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](#)