Stanyl® 46SF5030

PA46-GF30 FR(17) DSM Engineering Plastics

Product Texts

30% Glass Reinforced, Heat Stabilized, Flame Retardant, High Flow

ISO 1043 PA46-GF30 FR(17)

Stanyl website

Mechanical properties	dry / cond	Unit	Test Standard
ISO Data			
Tensile Modulus	12000 / 7500	MPa	ISO 527-1/-2
Stress at break	170 / 110	MPa	ISO 527-1/-2
Strain at break	1.9 / 2.8	%	ISO 527-1/-2
Charpy impact strength (+23°C)	40 / 40	kJ/m²	ISO 179/1eU
Charpy notched impact strength (+23°C)	13 / 13	kJ/m²	ISO 179/1eA
Charpy notched impact strength, -30°C	12 / 12	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
Coeff. of linear therm. expansion, parallel	20 / *	E-6/K	ISO 11359-1/-2
Coeff. of linear therm. expansion, normal	45 / *	E-6/K	ISO 11359-1/-2
Burning behav. at 1.5 mm nom. thickn.	V-0 / *	class	IEC 60695-11-10
Thickness tested	1.5 / *	mm	IEC 60695-11-10
UL recognition	UL / *	-	-
Burning behav. at thickness h	V-0 / *	class	IEC 60695-11-10
Thickness tested	0.3 / *	mm	IEC 60695-11-10
UL recognition	UL / *	-	-

Electrical properties	dry / cond	Unit	Test Standard
ISO Data			
Relative permittivity, 100Hz	4.3 / -	-	IEC 60250
Relative permittivity, 1MHz	4 / -	-	IEC 60250
Dissipation factor, 100Hz	60 / -	E-4	IEC 60250
Dissipation factor, 1MHz	160 / -	E-4	IEC 60250
Volume resistivity	>1E13 / 1E8	Ohm*m	IEC 60093
Surface resistivity	* / 1E14	Ohm	IEC 60093
Electric strength	30 / 20	kV/mm	IEC 60243-1
Comparative tracking index	225 / -	-	IEC 60112

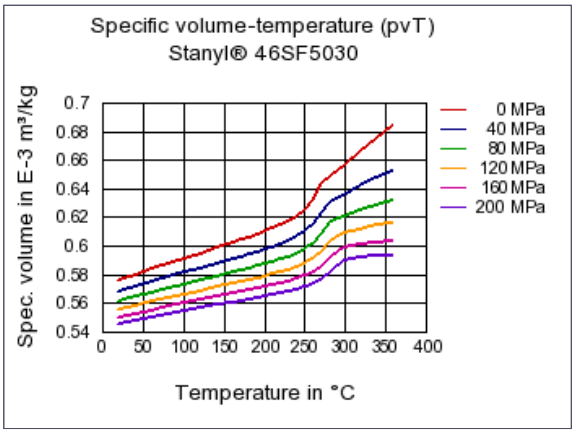
Other properties	dry / cond	Unit	Test Standard
ISO Data			
Water absorption	5.8 / *	%	Sim. to ISO 62
Humidity absorption	1.6 / *	%	Sim. to ISO 62
Density	1680 / -	kg/m³	ISO 1183

Material specific properties	dry / cond	Unit	Test Standard
ISO Data			
Viscosity number	66 / *	cm³/g	ISO 307, 1157, 1628

Rheological calculation properties	Value	Unit	Test Standard
ISO Data			
Density of melt	1450	kg/m³	-
Thermal conductivity of melt	0.258	W/(m K)	-
Spec. heat capacity of melt	1750	J/(kg K)	-
Eff. thermal diffusivity	1.01E-7	m²/s	-

Diagrams

Specific volume-temperature (pvT)



Characteristics

Processing
Injection Molding

Additives
Lubricants, Release agent

Delivery form
Pellets

Special Characteristics
Flame retardant, Platable, Heat stabilized or stable to heat

Other text information

Injection Molding

Injection Molding Recommendations