


Stanyl® ForTii™ F12

PA4T-GF40 FR(40)

DSM Engineering Plastics

Product Texts

40% Glass Reinforced, Flame Retardant, Halogen free and free of red phosphorous

ISO 1043 PA4T-GF40 FR(40)

[Stanyl ForTii website](#)

Rheological properties	dry / cond	Unit	Test Standard
ISO Data			
Molding shrinkage, parallel	0.3 / *	%	ISO 294-4, 2577
Molding shrinkage, normal	0.8 / *	%	ISO 294-4, 2577
Mechanical properties			
ISO Data			
Tensile Modulus	13500 / 13500	MPa	ISO 527-1/-2
Stress at break	170 / 170	MPa	ISO 527-1/-2
Strain at break	1.9 / 1.9	%	ISO 527-1/-2
Charpy impact strength (+23°C)	65 / 65	kJ/m²	ISO 179/1eU
Charpy notched impact strength (+23°C)	11 / 11	kJ/m²	ISO 179/1eA
Thermal properties			
ISO Data			
Melting temperature (10°C/min)	325 / *	°C	ISO 11357-1/-3
Glass transition temperature, 10°C/min	125 / *	°C	ISO 11357-1/-2
Temp. of deflection under load (1.80 MPa)	305 / *	°C	ISO 75-1/-2
Temp. of deflection under load (0.45 MPa)	323 / *	°C	ISO 75-1/-2
Burning behav. at 1.5 mm nom. thickn.	V-0 / *	class	IEC 60695-11-10
UL recognition	UL / *	-	-
Burning behav. at thickness h	V-0 / *	class	IEC 60695-11-10
Thickness tested	0.2 / *	mm	IEC 60695-11-10
UL recognition	UL / *	-	-
Electrical properties			
ISO Data			
Relative permittivity, 100Hz	4.2 / 4.2	-	IEC 60250
Relative permittivity, 1MHz	3.9 / 3.9	-	IEC 60250
Dissipation factor, 100Hz	50 / 50	E-4	IEC 60250
Dissipation factor, 1MHz	150 / 150	E-4	IEC 60250
Volume resistivity	>1E13 / >1E13	Ohm*m	IEC 60093
Surface resistivity	* / >1E15	Ohm	IEC 60093
Electric strength	33 / 33	kV/mm	IEC 60243-1
Comparative tracking index	600 / -	-	IEC 60112
Other properties			
ISO Data			
Humidity absorption	1.45 / *	%	Sim. to ISO 62
Density	1550 / -	kg/m³	ISO 1183
Material specific properties			
ISO Data			
Viscosity number	86 / *	cm³/g	ISO 307, 1157, 1628
Characteristics			

Processing

Injection Molding

Special Characteristics

Flame retardant

Delivery form

Granules