

Product Texts

Heat Stabilized, Lubricated

ISO 1043 PA46

Stanyl® TW341 is a V2 UL-rated, non-reinforced high heat polyamide that offers excellent wear & friction properties in combination with outstanding creep resistance, strength, stiffness and fatigue resistance especially at high temperatures in combination with cycle-time advantages and excellent flow.

Processing/Physical Characteristics	Value	Unit	Test Standard
ISO Data			
^[C] Density of melt	990	kg/m ³	-
^[C] Thermal conductivity of melt	0.25	W/(m K)	-
^[C] Spec. heat capacity of melt	2670	J/(kg K)	-
^[C] Eff. thermal diffusivity	9.21E-8	m ² /s	-

[C]: CAMPUS

Mechanical properties	dry / cond	Unit	Test Standard
ISO Data			
^[C] Tensile Modulus	3300 / 1000	MPa	ISO 527
^[C] Yield stress	100 / 55	MPa	ISO 527
^[C] Yield strain	10 / 20	%	ISO 527
^[C] Nominal strain at break	40 / >50	%	ISO 527
^[C] Tensile creep modulus, 1000h	* / 550	MPa	ISO 899-1
^[C] Charpy impact strength, +23°C	N / N	kJ/m ²	ISO 179/1eU
^[C] Charpy impact strength, -30°C	N / N	kJ/m ²	ISO 179/1eU
^[C] Charpy notched impact strength, +23°C	10 / 35	kJ/m ²	ISO 179/1eA
^[C] Charpy notched impact strength, -30°C	4 / 4	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	190 / *	°C	ISO 75-1/-2
^[C] Temp. of deflection under load, 0.45 MPa	280 / *	°C	ISO 75-1/-2
^[C] Vicat softening temperature, B	290 / *	°C	ISO 306
^[C] Coeff. of linear therm. expansion, parallel	85 / *	E-6/K	ISO 11359-1/-2
^[C] Coeff. of linear therm. expansion, normal	110 / *	E-6/K	ISO 11359-1/-2
^[C] Burning Behav. at 1.5 mm nom. thickn.	V-2 / *	class	IEC 60695-11-10
Thickness tested	1.5 / *	mm	-
Yellow Card available	yes / *	-	-
^[C] Burning Behav. at thickness h	V-2 / *	class	IEC 60695-11-10
Thickness tested	3.0 / *	mm	-
Yellow Card available	yes / *	-	-
^[C] Oxygen index	27 / *	%	ISO 4589-1/-2

[C]: CAMPUS

Electrical properties	dry / cond	Unit	Test Standard
ISO Data			
^[C] Relative permittivity, 100Hz	3.9 / 22	-	IEC 62631-2-1
^[C] Relative permittivity, 1MHz	3.6 / 4.5	-	IEC 62631-2-1
^[C] Dissipation factor, 100Hz	70 / 8700	E-4	IEC 62631-2-1
^[C] Dissipation factor, 1MHz	260 / 1200	E-4	IEC 62631-2-1
^[C] Volume resistivity	1E13 / 1E7	Ohm*m	IEC 62631-3-1
^[C] Surface resistivity	* / 1E13	Ohm	IEC 62631-3-2
^[C] Electric strength	25 / 15	kV/mm	IEC 60243-1

[C] Comparative tracking index	400 / -	-	IEC 60112
[C]: CAMPUS			

Other properties	dry / cond	Unit	Test Standard
[C] Water absorption	13.5 / *	%	Sim. to ISO 62
[C] Humidity absorption	3.7 / *	%	Sim. to ISO 62
[C] Density	1180 / -	kg/m ³	ISO 1183
[C]: CAMPUS			

Material specific properties	dry / cond	Unit	Test Standard
ISO Data			
[C] Viscosity number	185 / *	cm ³ /g	ISO 307, 1157, 1628
[C]: CAMPUS			

Characteristics

Processing Injection Molding	Special Characteristics Heat stabilized or stable to heat
Delivery form Pellets	Features Creep Resistance, Fatigue Resistance, Tribologic Grade
Additives Lubricants	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](#)