Stanyl® TS300

PA46 Envalior

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/m²	ISO 179/1eU
[C] Charpy impact strength, -30°C	**N / N**	kJ/m²	ISO 179/1eU
[C] Charpy notched impact strength, +23°C	**10 / 35**	kJ/m²	ISO 179/1eA
[C] Charpy notched impact strength, -30°C	**4 / 4**	kJ/m²	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] Oxygen index	**27 / ***	%	ISO 4589-1/-2

[C]: CAMPUS

Electrical properties	dry / cond	Unit	Test Standard
ISO Data			
[C] Relative permittivity, 100Hz	**4 / 13**	-	IEC 62631-2-1
[C] Relative permittivity, 1MHz	**3.6 / 4.3**	-	IEC 62631-2-1
[C] Dissipation factor, 100Hz	**70 / 1400**	E-4	IEC 62631-2-1
[C] Dissipation factor, 1MHz	**260 / 1000**	E-4	IEC 62631-2-1
[C] Volume resistivity	**1E13 / 1E10**	Ohm*m	IEC 62631-3-1
[C] Surface resistivity	*** / 1E14**	Ohm	IEC 62631-3-2
[C] Electric strength	**25 / 20**	kV/mm	IEC 60243-1

[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/m³	ISO 1183

[C]: CAMPUS

Material specific properties	dry / cond	Unit	Test Standard
ISO Data			
[C] Viscosity number	**185 / ***	cm³/g	ISO 307, 1157, 1628

[C]: CAMPUS

Characteristics

Processing
Injection Molding

Additives
Lubricants, Release agent

Delivery form
Pellets

Regional Availability
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