Stanyl® TW241B3

PA46-CF15 Envalior

Product Texts

15% Carbon Reinforced, Heat Stabilized, Lubricated

ISO 1043 PA46-CF15

Stanyl® TW241B3 is a high heat polyamide that offers excellent creep resistance, strength, stiffness and fatigue resistance especially at high temperatures in combination with cycle-time advantages and excellent flow. TW241B3 has an excellent track-record in gear applications.

Processing/Physical Characteristics	dry / cond	Unit	Test Standard
ISO Data			
[C] Molding shrinkage, parallel	**0.3 / ***	%	ISO 294-4, 2577
[C] Molding shrinkage, normal	**1.1 / ***	%	ISO 294-4, 2577

[C]: CAMPUS

Mechanical properties	dry / cond	Unit	Test Standard
ISO Data			
[C] Tensile Modulus	**13000 / 7000**	MPa	ISO 527
[C] Stress at break	**210 / 130**	MPa	ISO 527
[C] Strain at break	**2.3 / 4.3**	%	ISO 527
[C] Charpy impact strength, +23°C	**45 / 70**	kJ/m²	ISO 179/1eU
[C] Charpy impact strength, -30°C	**40 / 40**	kJ/m²	ISO 179/1eU
[C] Charpy notched impact strength, +23°C	**5.5 / 12**	kJ/m²	ISO 179/1eA
[C] Charpy notched impact strength, -30°C	**4.5 / 4.5**	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	**290 / ***	°C	ISO 75-1/-2
[C] Coeff. of linear therm. expansion, parallel	**25 / ***	E-6/K	ISO 11359-1/-2
[C] Coeff. of linear therm. expansion, normal	**50 / ***	E-6/K	ISO 11359-1/-2

[C]: CAMPUS

Electrical properties	dry / cond	Unit	Test Standard
ISO Data			
[C] Volume resistivity	**100000 / -**	Ohm*m	IEC 62631-3-1

[C]: CAMPUS

Other properties	dry / cond	Unit	Test Standard
[C] Water absorption	**11.5 / ***	%	Sim. to ISO 62
[C] Humidity absorption	**3.2 / ***	%	Sim. to ISO 62
[C] Density	**1230 / -**	kg/m³	ISO 1183

[C]: CAMPUS

Characteristics

Processing
Injection Molding

Additives
Lubricants

Special Characteristics
Heat stabilized or stable to heat

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