

Product Texts

Thermal conductive material

ISO 1043 PA46-GF15

Stanyl® TC502 is thermal conductive high heat polyamide designed for thermal management of electrical components with demanding conductivity levels.

Processing/Physical Characteristics	dry / cond	Unit	Test Standard
ISO Data			
^[C] Molding shrinkage, parallel	0.6 / *	%	ISO 294-4, 2577
^[C] Molding shrinkage, normal	1.2 / *	%	ISO 294-4, 2577

[C]: CAMPUS

Mechanical properties	dry / cond	Unit	Test Standard
ISO Data			
^[C] Tensile Modulus	10000 / 4500	MPa	ISO 527
^[C] Stress at break	65 / 45	MPa	ISO 527
^[C] Strain at break	1 / 2	%	ISO 527
^[C] Charpy impact strength, +23°C	10 / 13	kJ/m ²	ISO 179/1eU
^[C] Charpy impact strength, -30°C	10 / 10	kJ/m ²	ISO 179/1eU
^[C] Charpy notched impact strength, +23°C	4 / 6	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] Coeff. of linear therm. expansion, parallel	25 / *	E-6/K	ISO 11359-1/-2
^[C] Coeff. of linear therm. expansion, normal	35 / *	E-6/K	ISO 11359-1/-2

[C]: CAMPUS

Electrical properties	dry / cond	Unit	Test Standard
ISO Data			
^[C] Volume resistivity	10000 / -	Ohm*m	IEC 62631-3-1
^[C] Surface resistivity	* / 1E7	Ohm	IEC 62631-3-2

[C]: CAMPUS

Other properties	dry / cond	Unit	Test Standard
^[C] Humidity absorption	1.9 / *	%	Sim. to ISO 62
^[C] Density	1480 / -	kg/m ³	ISO 1183

[C]: CAMPUS

Characteristics**Processing**

Injection Molding

Delivery form

Pellets

Special Characteristics

Increased electrical conductivity, Heat stabilized or stable to heat, Thermally Conductive

Applications

Electrical and Electronical

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](#)