

Stanyl® TW200B6

PA46—CF30

30% Carbon Fiber Reinforced, Heat Stabilized, Lubricated

Print Date: 2025-12-03

Stanyl® TW200B6 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. TW200B6 has an excellent track-record in gear applications.

PROPERTIES	TYPICAL DATA	UNIT	TEST METHOD
RHEOLOGICAL PROPERTIES			
	DRY / COND		
Molding shrinkage (parallel)	0.2 / *	%	ISO 294-4
Molding shrinkage (normal)	0.9 / *	%	ISO 294-4
MECHANICAL PROPERTIES			
	DRY / COND		
Tensile modulus	23500 / 13500	MPa	ISO 527-1/-2
Tensile modulus (120°C)	11000 / —	MPa	ISO 527-1/-2
Tensile modulus (160°C)	10000	MPa	ISO 527-1/-2
Tensile modulus (180°C)	9500	MPa	ISO 527-1/-2
Tensile modulus (200°C)	8700	MPa	ISO 527-1/-2
Stress at break	250 / 165	MPa	ISO 527-1/-2
Stress at break (120°C)	135 / —	MPa	ISO 527-1/-2
Stress at break (160°C)	115	MPa	ISO 527-1/-2
Stress at break (180°C)	105	MPa	ISO 527-1/-2
Stress at break (200°C)	90	MPa	ISO 527-1/-2
Strain at break	1.7 / 3	%	ISO 527-1/-2
Strain at break (120°C)	3 / —	%	ISO 527-1/-2
Strain at break (160°C)	3	%	ISO 527-1/-2
Strain at break (180°C)	3	%	ISO 527-1/-2
Strain at break (200°C)	3	%	ISO 527-1/-2
Flexural modulus	20000 / 11000	MPa	ISO 178
Flexural modulus (120°C)	10500	MPa	ISO 178

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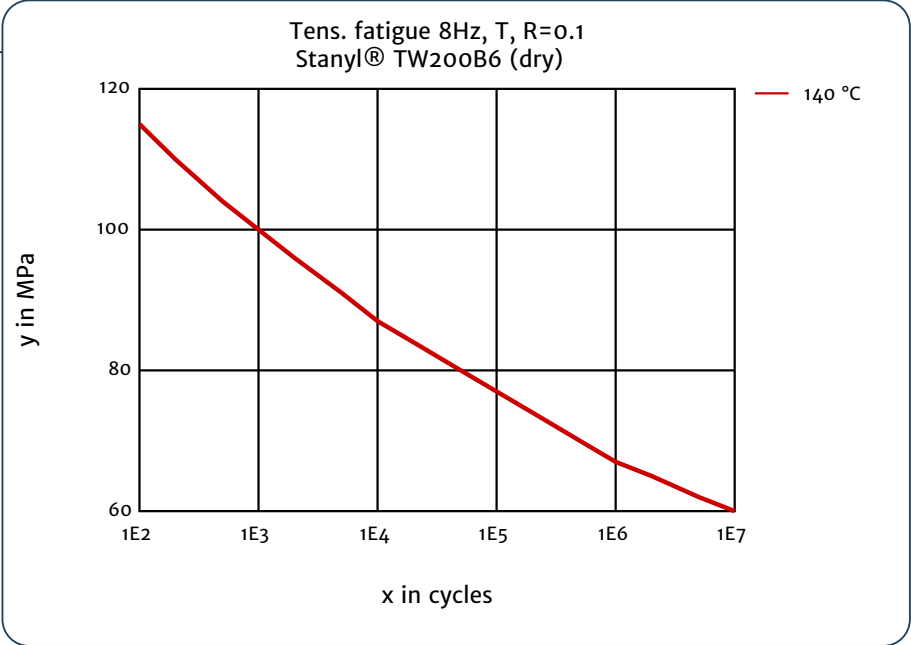
PROPERTIES	TYPICAL DATA	UNIT	TEST METHOD
Flexural modulus (160°C)	10000	MPa	ISO 178
Flexural strength	360 / 220	MPa	ISO 178
Flexural strength (120°C)	195	MPa	ISO 178
Flexural strength (160°C)	160	MPa	ISO 178
Charpy impact strength (+23°C)	60 / 75	kJ/m²	ISO 179/1eU
Charpy impact strength (-30°C)	50 / 50	kJ/m²	ISO 179/1eU
Charpy notched impact strength (+23°C)	8 / 14	kJ/m²	ISO 179/1eA
Charpy notched impact strength (-30°C)	6.5 / 6.5	kJ/m²	ISO 179/1eA
Izod notched impact strength (+23°C)	8 / 14	kJ/m²	ISO 180/1A
Izod notched impact strength (-40°C)	6.5 / 6.5	kJ/m²	ISO 180/1A
THERMAL PROPERTIES		DRY / COND	
Melting temperature (10°C/min)	295 / *	°C	ISO 11357-1/-3
Temp. of deflection under load (1.80 MPa)	290 / *	°C	ISO 75-1/-2
Coeff. of linear therm. expansion (parallel)	0.08	E-4/°C	ASTM D696
Coeff. of linear therm. expansion (normal)	0.34	E-4/°C	ASTM D696
ELECTRICAL PROPERTIES		DRY / COND	
Volume resistivity	0.1 / -	Ohm*m	IEC 62631-3-1
OTHER PROPERTIES		DRY / COND	
Humidity absorption	2.6 / *	%	Sim. to ISO 62
Density	1290 / -	kg/m³	ISO 1183

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Tens. fatigue 8Hz, T, R=0.1 ,
dry



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