

Stanyl® TW200F3

PA46-GF15

15% Glass Reinforced, Heat Stabilized

Print Date: 2021-05-04

Stanyl® TW200F3 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.

Properties	Typical Data	Unit	Test Method
Rheological properties			
	dry / cond		
Molding shrinkage (parallel)	0.5 / *	%	ISO 294-4
Molding shrinkage (normal)	1.2 / *	%	ISO 294-4
Mechanical properties			
	dry / cond		
Tensile modulus	6100 / 2800	MPa	ISO 527-1/-2
Tensile modulus (120°C)	3000 / -	MPa	ISO 527-1/-2
Tensile modulus (160°C)	2650	MPa	ISO 527-1/-2
Tensile modulus (180°C)	2500	MPa	ISO 527-1/-2
Tensile modulus (200°C)	2350	MPa	ISO 527-1/-2
Stress at break	140 / 85	MPa	ISO 527-1/-2
Stress at break (120°C)	82 / -	MPa	ISO 527-1/-2
Stress at break (160°C)	74	MPa	ISO 527-1/-2
Stress at break (180°C)	70	MPa	ISO 527-1/-2
Stress at break (200°C)	66	MPa	ISO 527-1/-2
Strain at break	3.5 / 12	%	ISO 527-1/-2
Strain at break (120°C)	13 / -	%	ISO 527-1/-2
Strain at break (160°C)	12	%	ISO 527-1/-2
Strain at break (180°C)	12	%	ISO 527-1/-2
Strain at break (200°C)	12	%	ISO 527-1/-2
Flexural modulus	5800 / 2800	MPa	ISO 178
Flexural modulus (120°C)	2700	MPa	ISO 178

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Properties	Typical Data	Unit	Test Method
Flexural modulus (160°C)	2600	MPa	ISO 178
Flexural strength	235 / 125	MPa	ISO 178
Flexural strength (120°C)	80	MPa	ISO 178
Flexural strength (160°C)	75	MPa	ISO 178
Charpy impact strength (+23°C)	50 / 100	kJ/m ²	ISO 179/1eU
Charpy impact strength (-30°C)	45 / 50	kJ/m ²	ISO 179/1eU
Charpy notched impact strength (+23°C)	6 / 13	kJ/m ²	ISO 179/1eA
Charpy notched impact strength (-30°C)	6 / 6	kJ/m ²	ISO 179/1eA
Izod notched impact strength (+23°C)	6 / 13	kJ/m ²	ISO 180/1A
Izod notched impact strength (-40°C)	6 / 6	kJ/m ²	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)	275 / *	°C	ISO 75-1/-2
Temp. of deflection under load (0.45 MPa)	290 / *	°C	ISO 75-1/-2
Coeff. of linear therm. expansion (parallel)	0.5 / *	E-4/°C	ISO 11359-1/-2
Coeff. of linear therm. expansion (normal)	0.8 / *	E-4/°C	ISO 11359-1/-2
Burning Behav. at 1.5 mm nom. thickn.	HB / *	class	IEC 60695-11-10
Thickness tested	1.5 / *	mm	IEC 60695-11-10
UL recognition	Yes / *	-	-
Relative Temperature Index - electrical	65	°C	UL746B
RTI electrical (Thickness (1) tested)	1.5	mm	UL746B

Electrical properties

dry / cond

Volume resistivity	1E12 / 1E7	Ohm*m	IEC 62631-3-1
Comparative tracking index	400 / -	V	IEC 60112

Other properties

dry / cond

Humidity absorption	3.15 / *	%	Sim. to ISO 62
Density	1290 / -	kg/m ³	ISO 1183

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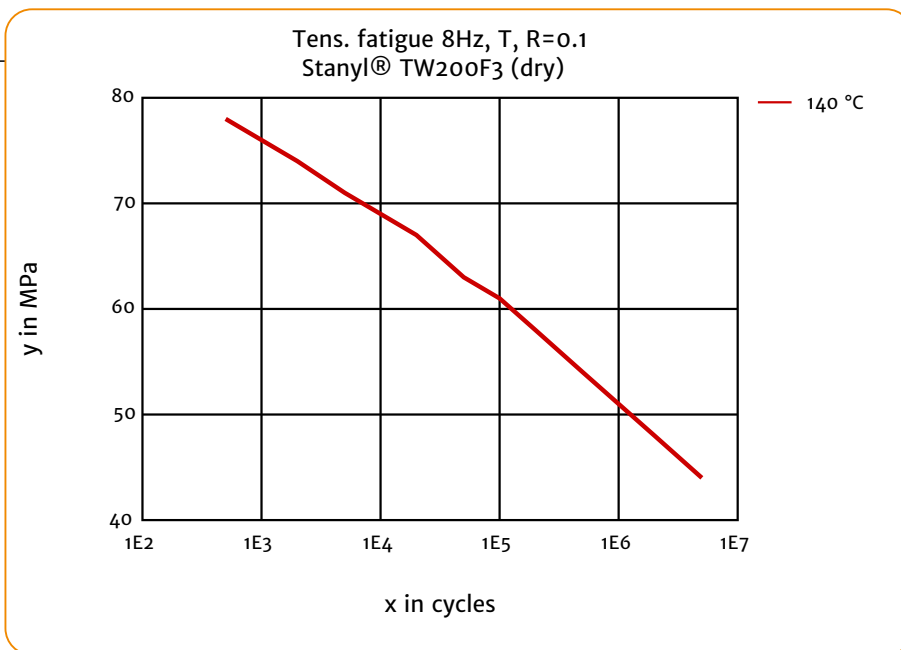
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BRIGHT SCIENCE. BRIGHTER LIVING.

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



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