

Stanyl® TW300

PA46

Heat Stabilized

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Properties	Typical Data	Unit	Test Method
Rheological properties			
	dry / cond		
Molding shrinkage [parallel]	2/*	%	Sim. to ISO 294-4
Molding shrinkage [normal]	2/*	%	Sim. to ISO 294-4
Mechanical properties			
	dry / cond		
Tensile modulus	3300/1000	MPa	ISO 527-1/-2
Tensile modulus (120°C)	800	MPa	ISO 527-1/-2
Tensile modulus (160°C)	650	MPa	ISO 527-1/-2
Tensile modulus (180°C)	600	MPa	ISO 527-1/-2
Tensile modulus (200°C)	500	MPa	ISO 527-1/-2
Yield stress	100/55	MPa	ISO 527-1/-2
Yield stress (120°C)	50	MPa	ISO 527-1/-2
Yield stress (160°C)	40	MPa	ISO 527-1/-2
Yield stress (180°C)	35	MPa	ISO 527-1/-2
Yield stress (200°C)	30	MPa	ISO 527-1/-2
Nominal strain at break	40/>50	%	ISO 527-1/-2
Nominal strain at break (120°C)	>50	%	ISO 527-1/-2
Nominal strain at break (160°C)	>50	%	ISO 527-1/-2
Nominal strain at break (180°C)	>50	%	ISO 527-1/-2
Nominal strain at break (200°C)	>50	%	ISO 527-1/-2
Flexural modulus	3000/900	MPa	ISO 178
Flexural modulus (120°C)	800	MPa	ISO 178

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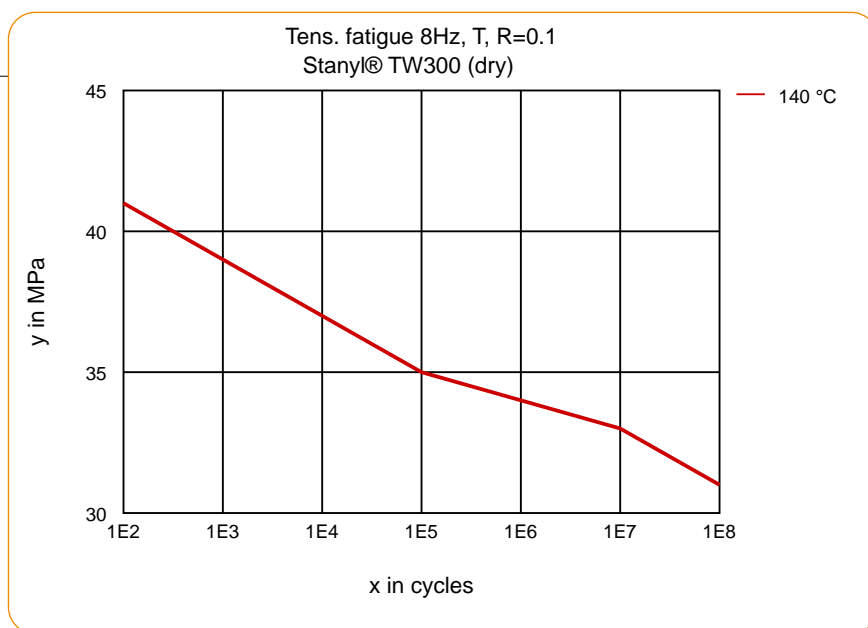
Properties	Typical Data	Unit	Test Method
Flexural modulus (160°C)	600	MPa	ISO 178
Charpy impact strength (+23°C)	N/N	kJ/m ²	ISO 179/1eU
Charpy impact strength (-30°C)	N/N	kJ/m ²	ISO 179/1eU
Charpy notched impact strength (+23°C)	10/35	kJ/m ²	ISO 179/1eA
Charpy notched impact strength (-30°C)	4/4	kJ/m ²	ISO 179/1eA
Izod notched impact strength (+23°C)	10/35	kJ/m ²	ISO 180/1A
Izod notched impact strength (-40°C)	4/4	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)	190/*	°C	ISO 75-1/-2
Temp. of deflection under load (0.45 MPa)	280/*	°C	ISO 75-1/-2
Coeff. of linear therm. expansion (parallel)	0.85/*	E-4/°C	ISO 11359-1/-2
Coeff. of linear therm. expansion (normal)	1.1/*	E-4/°C	ISO 11359-1/-2
Burning Beh. at 1.5 mm nom. thickn.	V-2/*	class	IEC 60695-11-10
Thickness tested	1.5/*	mm	IEC 60695-11-10
UL recognition	Yes/*	-	-
Burning Beh. at thickness h	V-2/*	class	IEC 60695-11-10
Thickness tested	0.75/*	mm	IEC 60695-11-10
UL recognition	Yes/*	-	-
Relative Temperature Index - electrical	150	°C	UL746B
RTI electrical (Thickness (1) tested)	0.75	mm	UL746B
Thermal Index 5000 hrs	152	°C	IEC 60216/ISO 527-1/-2
Electrical properties			
	dry / cond		
Volume resistivity	1E13/1E7	Ohm*m	IEC 60093
Electric strength	25/15	kV/mm	IEC 60243-1
Comparative tracking index	400/-	-	IEC 60112
Relative permittivity (100Hz)	3.9/22	-	IEC 60250

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Properties	Typical Data	Unit	Test Method
Relative permittivity (1 MHz)	3.6/4.5	-	IEC 60250
Other properties			
	dry / cond		
Humidity absorption	3.7/*	%	Sim. to ISO 62
Density	1180/-	kg/m ³	ISO 1183

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



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