

# Stanyl® TW241F10

## Property Data

PA46-GF50

50% Glass Reinforced, Heat Stabilized

Properties	Typical Data	Unit	Test Method
<b>RHEOLOGICAL PROPERTIES</b>			
	dry / cond		
Molding shrinkage [parallel]	0.4 / *	%	Sim. to ISO 294-4
Molding shrinkage [normal]	0.9 / *	%	Sim. to ISO 294-4
<b>MECHANICAL PROPERTIES</b>			
	dry / cond		
Tensile modulus	16000 / 10000	MPa	ISO 527-1/-2
Tensile modulus (120°C)	8200	MPa	ISO 527-1/-2
Tensile modulus (160°C)	7400	MPa	ISO 527-1/-2
Tensile modulus (180°C)	7000	MPa	ISO 527-1/-2
Tensile modulus (200°C)	6600	MPa	ISO 527-1/-2
Stress at break	250 / 160	MPa	ISO 527-1/-2
Stress at break (120°C)	140	MPa	ISO 527-1/-2
Stress at break (160°C)	120	MPa	ISO 527-1/-2
Stress at break (180°C)	110	MPa	ISO 527-1/-2
Stress at break (200°C)	100	MPa	ISO 527-1/-2
Strain at break	2.7 / 5	%	ISO 527-1/-2
Strain at break (120°C)	5	%	ISO 527-1/-2
Strain at break (160°C)	5	%	ISO 527-1/-2
Strain at break (180°C)	5	%	ISO 527-1/-2
Strain at break (200°C)	5	%	ISO 527-1/-2
Flexural modulus	14000 / 9000	MPa	ISO 178
Flexural modulus (120°C)	7300	MPa	ISO 178
Flexural modulus (160°C)	6500	MPa	ISO 178
Charpy impact strength (+23°C)	100 / 110	kJ/m <sup>2</sup>	ISO 179/1eU
Charpy impact strength (-30°C)	90 / 100	kJ/m <sup>2</sup>	ISO 179/1eU
Charpy notched impact strength (+23°C)	16 / 24	kJ/m <sup>2</sup>	ISO 179/1eA
Charpy notched impact strength (-30°C)	14 / 14	kJ/m <sup>2</sup>	ISO 179/1eA
Izod notched impact strength (23°C)	16 / 24	kJ/m <sup>2</sup>	ISO 180/1A
Izod notched impact strength (-40°C)	14 / 14	kJ/m <sup>2</sup>	ISO 180/1A
<b>THERMAL PROPERTIES</b>			
	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)	0.25 / *	E-4/°C	ISO 11359-1/-2
Coeff. of linear therm. expansion (normal)	0.4 / *	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	UL / *	-	-
Burning Behav. at thickness h	HB / *	class	IEC 60695-11-10
Thickness tested	0.75 / *	mm	IEC 60695-11-10
UL recognition	UL / *	-	-

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Thermal Index 5000 hrs	<b>177</b>	°C	IEC 60216/ISO 527-1/-2
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## ELECTRICAL PROPERTIES

dry / cond

Volume resistivity	<b>1E12 / 1E8</b>	Ohm*m	IEC 60093
Electric strength	<b>30 / 20</b>	kV/mm	IEC 60243-1
Comparative tracking index	<b>300 / -</b>	-	IEC 60112

## OTHER PROPERTIES

dry / cond

Humidity absorption	<b>1.85 / *</b>	%	Sim. to ISO 62
Density	<b>1620 / -</b>	kg/m <sup>3</sup>	ISO 1183

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