

# Stanyl<sup>®</sup> TS250F8

## PA46–GF40 FR(17)

40% Glass Reinforced, Flame Retardant, Heat Stabilized

PROPERTIES	TYPICAL DATA	UNIT	TEST METHOD
<b>RHEOLOGICAL PROPERTIES</b>			
	<b>DRY / COND</b>		
Molding shrinkage [parallel]	0.3 / *	%	Sim. to ISO 294–4
Molding shrinkage [normal]	0.9 / *	%	Sim. to ISO 294–4
<b>MECHANICAL PROPERTIES</b>			
	<b>DRY / COND</b>		
Tensile modulus	16000 / 10500	MPa	ISO 527–1/–2
Tensile modulus (120°C)	8500 / –	MPa	ISO 527–1/–2
Tensile modulus (160°C)	6200	MPa	ISO 527–1/–2
Stress at break	200 / 130	MPa	ISO 527–1/–2
Stress at break (120°C)	110 / –	MPa	ISO 527–1/–2
Stress at break (160°C)	90	MPa	ISO 527–1/–2
Strain at break	2 / 2.7	%	ISO 527–1/–2
Strain at break (120°C)	3 / –	%	ISO 527–1/–2
Strain at break (160°C)	5	%	ISO 527–1/–2
Flexural modulus	14000 / 10000	MPa	ISO 178
Flexural modulus (120°C)	8500	MPa	ISO 178
Flexural modulus (160°C)	5500	MPa	ISO 178
Flexural strength	300 / 250	MPa	ISO 178
Flexural strength (120°C)	230	MPa	ISO 178
Flexural strength (160°C)	200	MPa	ISO 178
Charpy notched impact strength (+23°C)	14 / 14	kJ/m <sup>2</sup>	ISO 179/1eA
Charpy notched impact strength (–30°C)	13 / 13	kJ/m <sup>2</sup>	ISO 179/1eA
Izod notched impact strength (+23°C)	13 / 13	kJ/m <sup>2</sup>	ISO 180/1A
Izod notched impact strength (–40°C)	12 / 12	kJ/m <sup>2</sup>	ISO 180/1A

## Property Data

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<i>PROPERTIES</i>	<i>TYPICAL DATA</i>	<i>UNIT</i>	<i>TEST METHOD</i>
<b>THERMAL PROPERTIES</b>			
<i>DRY / COND</i>			
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
Temp. of deflection under load (0.45 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)	0.5 / *	E-4/°C	ISO 11359-1/-2
Burning Behav. at 1.5 mm nom. thickn.	V-0 / *	class	IEC 60695-11-10
Thickness tested	1.5 / *	mm	IEC 60695-11-10
UL recognition	Yes / *	–	–
Burning Behav. at 3.0 mm nom. thickn.	V-0 / *	class	IEC 60695-11-10
Thickness tested	3 / *	mm	IEC 60695-11-10
UL recognition	Yes / *	–	–
Relative Temperature Index – electrical	140	°C	UL746B
RTI electrical (Thickness (1) tested)	0.75	mm	UL746B
Thermal Index 5000 hrs	163	°C	IEC 60216/ISO 527-1/-2
<b>ELECTRICAL PROPERTIES</b>			
<i>DRY / COND</i>			
Volume resistivity	>1E13 / 1E8	Ohm*m	IEC 62631-3-1
Electric strength	30 / 20	kV/mm	IEC 60243-1
Comparative tracking index	350 / –	V	IEC 60112
Relative permittivity (100Hz)	4.3 / 12	–	IEC 62631-2-1
Relative permittivity (1 MHz)	4 / 4.5	–	IEC 62631-2-1
Relative permittivity (1GHz)	3.6 / 3.8	–	IEC 61189-2-721
<b>OTHER PROPERTIES</b>			
<i>DRY / COND</i>			
Humidity absorption	1.3 / *	%	Sim. to ISO 62
Density	1770 / –	kg/m³	ISO 1183