

# Stanyl<sup>®</sup> 46HF5050

## PA46–GF50 FR(17)

50% Glass Reinforced, Heat Stabilized, Flame Retardant, High Flow

Print Date: 2024–03–27

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]	0.7 / *	%	Sim. to ISO 294–4
<b>MECHANICAL PROPERTIES</b>			
	<b>DRY / COND</b>		
Tensile modulus	18000 / 15000	MPa	ISO 527–1/–2
Stress at break	200 / 135	MPa	ISO 527–1/–2
Strain at break	1.5 / 2.3	%	ISO 527–1/–2
Flexural modulus	16000 / 14000	MPa	ISO 178
Flexural strength	315 / 260	MPa	ISO 178
Charpy impact strength (+23°C)	40 / 45	kJ/m <sup>2</sup>	ISO 179/1eU
Charpy impact strength (–30°C)	40 / 40	kJ/m <sup>2</sup>	ISO 179/1eU
Charpy notched impact strength (+23°C)	15 / 15	kJ/m <sup>2</sup>	ISO 179/1eA
Charpy notched impact strength (–30°C)	15 / 15	kJ/m <sup>2</sup>	ISO 179/1eA
Izod notched impact strength (+23°C)	18 / 18	kJ/m <sup>2</sup>	ISO 180/1A
Izod notched impact strength (–40°C)	18 / 18	kJ/m <sup>2</sup>	ISO 180/1A
<b>THERMAL PROPERTIES</b>			
	<b>DRY / COND</b>		
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)	0.2 / *	E–4/°C	ISO 11359–1/–2
Coeff. of linear therm. expansion (normal)	0.3 / *	E–4/°C	ISO 11359–1/–2
Burning Behav. at 1.5 mm nom. thickn.	V–0 / *	class	IEC 60695–11–10

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## Property Data

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Print Date: 2024-03-27

PROPERTIES	TYPICAL DATA	UNIT	TEST METHOD
Thickness tested	1.5 / *	mm	IEC 60695-11-10
UL recognition	Yes / *	–	–
Burning Behav. at 3.0 mm nom. thicken.	V-0 / *	class	IEC 60695-11-10
Thickness tested	3 / *	mm	IEC 60695-11-10
UL recognition	Yes / *	–	–
Relative Temperature Index – electrical	65	°C	UL746B
RTI electrical (Thickness (1) tested)	0.4	mm	UL746B
Thermal Index 5000 hrs	163	°C	IEC 60216/ISO 527-1/-2

### ELECTRICAL PROPERTIES

#### DRY / COND

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 / –	–	IEC 62631-2-1
Relative permittivity (1 MHz)	4 / –	–	IEC 62631-2-1

### OTHER PROPERTIES

#### DRY / COND

Humidity absorption	1.2 / *	%	Sim. to ISO 62
Density	1870 / –	kg/m <sup>3</sup>	ISO 1183

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