

# Stanyl® HFX31S

## PA46-GF20 FR(40)

20% Glass Reinforced, High Flow, Halogen free and free of red phosphorous

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Properties	Typical Data	Unit	Test Method
<b>Rheological properties</b>			
	dry / cond		
Molding shrinkage (parallel)	0.8 / *	%	ISO 294-4
Molding shrinkage (normal)	1.3 / *	%	ISO 294-4
<b>Mechanical properties</b>			
	dry / cond		
Tensile modulus	7500 / 5000	MPa	ISO 527-1/-2
Stress at break	120 / 85	MPa	ISO 527-1/-2
Strain at break	2.9 / 3.4	%	ISO 527-1/-2
Flexural modulus	7500 / 5000	MPa	ISO 178
Charpy impact strength (+23°C)	49 / 53	kJ/m <sup>2</sup>	ISO 179/1eU
Charpy notched impact strength (+23°C)	7 / 10	kJ/m <sup>2</sup>	ISO 179/1eA
<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)	285 / *	°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)	0.65 / *	E-4/°C	ISO 11359-1/-2
Burning Beh. at 1.5 mm nom. thickn.	V-0 / *	class	IEC 60695-11-10
Thickness tested	1.6 / *	mm	IEC 60695-11-10
Burning Beh. at thickness h	V-0 / *	class	IEC 60695-11-10
Thickness tested	0.4 / *	mm	IEC 60695-11-10
Relative Temperature Index - electrical	120	°C	UL746B
RTI electrical (Thickness (1) tested)	0.2	mm	UL746B

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Properties	Typical Data	Unit	Test Method
<b>Electrical properties</b> dry / cond			
Volume resistivity	>1E13 / 4E10	Ohm*m	IEC 60093
Electric strength	33 / 30	kV/mm	IEC 60243-1
Comparative tracking index	550 / -	V	IEC 60112
Relative permittivity (1GHz)	3.6 / 3.75	-	IEC 60250
Relative permittivity (10GHz)	3.6 / 3.7	-	IEC 60250
<b>Other properties</b> dry / cond			
Humidity absorption	2.8 / *	%	Sim. to ISO 62
Density	1360 / -	kg/m <sup>3</sup>	ISO 1183

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