

Stanyl[®] HFX31S B–MB

PA46–GF20 FR(40)

Sustainability

Bio-based
Mass balanced

PROPERTIES	TYPICAL DATA	UNIT	TEST METHOD
RHEOLOGICAL PROPERTIES		DRY / COND	
Molding shrinkage (parallel)	0.45 / *	%	ISO 294–4
Molding shrinkage (normal)	1.4 / *	%	ISO 294–4
MECHANICAL PROPERTIES		DRY / COND	
Tensile modulus	7600 / 5000	MPa	ISO 527–1/–2
Tensile modulus (120°C)	4100 / –	MPa	ISO 527–1/–2
Tensile modulus (160°C)	3700	MPa	ISO 527–1/–2
Stress at break	120 / 85	MPa	ISO 527–1/–2
Stress at break (120°C)	70 / –	MPa	ISO 527–1/–2
Stress at break (160°C)	60	MPa	ISO 527–1/–2
Strain at break	3 / 3.4	%	ISO 527–1/–2
Strain at break (120°C)	5.5 / –	%	ISO 527–1/–2
Strain at break (160°C)	6	%	ISO 527–1/–2
Flexural modulus	7000 / 4800	MPa	ISO 178
Flexural modulus (120°C)	4300	MPa	ISO 178
Flexural modulus (160°C)	3900	MPa	ISO 178
Flexural strength	190 / 140	MPa	ISO 178
Flexural strength (120°C)	100	MPa	ISO 178
Flexural strength (160°C)	90	MPa	ISO 178



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PROPERTIES	TYPICAL DATA	UNIT	TEST METHOD
Charpy impact strength (+23°C)	49 / 53	kJ/m²	ISO 179/1eU
Charpy notched impact strength (+23°C)	7 / 10	kJ/m²	ISO 179/1eA

THERMAL PROPERTIES	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 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	120	°C	UL746B
RTI electrical (Thickness (1) tested)	0.2	mm	UL746B

ELECTRICAL PROPERTIES	DRY / COND		
Volume resistivity	>1E13 / 4E10	Ohm*m	IEC 62631-3-1
Electric strength	33 / 30	kV/mm	IEC 60243-1
Comparative tracking index	550 / —	V	IEC 60112
Relative permittivity (1GHz)	3.6 / 3.75	—	IEC 61189-2-721
Relative permittivity (10GHz)	3.6 / 3.7	—	IEC 61189-2-721

OTHER PROPERTIES	DRY / COND		
Humidity absorption	2.7 / *	%	Sim. to ISO 62
Density	1360 / —	kg/m³	ISO 1183

