Property Data

Envalior
Imagine the Future

Stanyl® 46HF4530

PA46–GF30

30% Glass Fiber Reinforced, High Flow, Electro–friendly

Print Date: 2026–06–30

PROPERTIES	TYPICAL DATA	UNIT	TEST METHOD
RHEOLOGICAL PROPERTIES	DRY / COND		
Molding shrinkage [parallel]	0.5 / *	%	Sim. to ISO 294–4
Molding shrinkage [normal]	1.3 / *	%	Sim. to ISO 294–4
MECHANICAL PROPERTIES	DRY / COND		
Tensile modulus	10000 / 6000	MPa	ISO 527–1/–2
Tensile modulus (120°C)	5800 / –	MPa	ISO 527–1/–2
Tensile modulus (160°C)	5300	MPa	ISO 527–1/–2
Tensile modulus (180°C)	5000	MPa	ISO 527–1/–2
Tensile modulus (200°C)	4700	MPa	ISO 527–1/–2
Stress at break	180 / 120	MPa	ISO 527–1/–2
Stress at break (120°C)	115 / –	MPa	ISO 527–1/–2
Stress at break (160°C)	100	MPa	ISO 527–1/–2
Stress at break (180°C)	95	MPa	ISO 527–1/–2
Stress at break (200°C)	90	MPa	ISO 527–1/–2
Strain at break	2.5 / 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	9500 / 5500	MPa	ISO 178
Flexural modulus (120°C)	5100	MPa	ISO 178
Flexural modulus (160°C)	4900	MPa	ISO 178
Flexural strength	270 / 160	MPa	ISO 178

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PROPERTIES	*TYPICAL DATA*	*UNIT*	*TEST METHOD*
Flexural strength (120°C)	140	MPa	ISO 178
Flexural strength (160°C)	125	MPa	ISO 178
Charpy impact strength (+23°C)	60 / 90	kJ/m²	ISO 179/1eU
Charpy impact strength (–30°C)	60 / 60	kJ/m²	ISO 179/1eU
Charpy notched impact strength (+23°C)	10 / 15	kJ/m²	ISO 179/1eA
Charpy notched impact strength (–30°C)	10 / 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)	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	ASTM D696
Coeff. of linear therm. expansion (normal)	0.6	E–4/°C	ASTM D696
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	Yes / *	–	–
Burning Behav. at 3.0 mm nom. thickn.	HB / *	class	IEC 60695–11–10
Thickness tested	3 / *	mm	IEC 60695–11–10
UL recognition	Yes / *	–	–
ELECTRICAL PROPERTIES	***DRY / COND***		
Volume resistivity	1E13 / 1E9	Ohm*m	IEC 62631–3–1
Electric strength	30 / 25	kV/mm	IEC 60243–1
Comparative tracking index	550 / –	V	IEC 60112
Relative permittivity (100Hz)	4.4 / 12	–	IEC 62631–2–1
Relative permittivity (1 MHz)	4 / 4.6	–	IEC 62631–2–1
Relative permittivity (1GHz)	3.6 / –	–	IEC 61189–2–721
OTHER PROPERTIES	***DRY / COND***		

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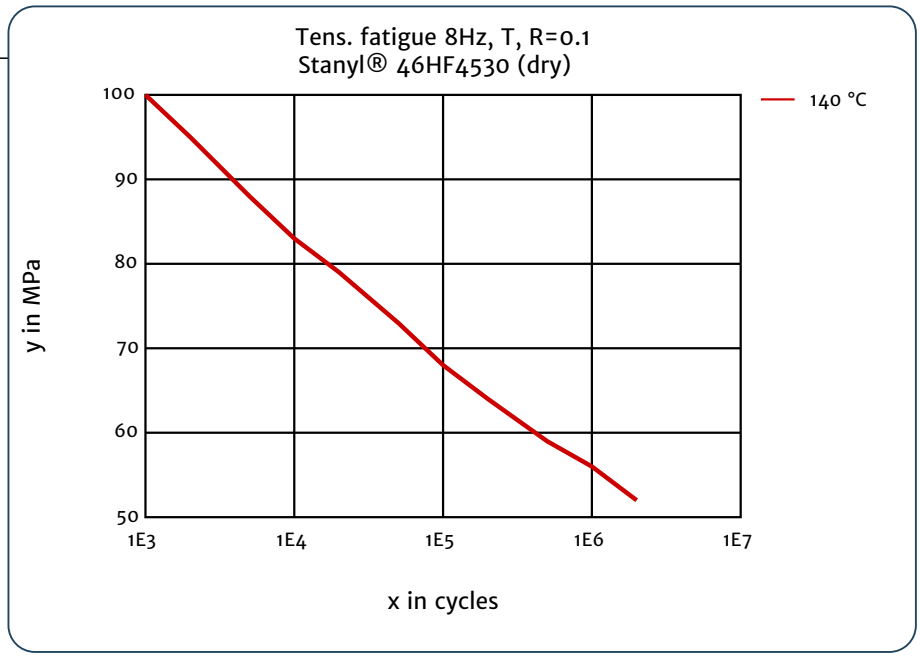
PROPERTIES	TYPICAL DATA	UNIT	TEST METHOD
Humidity absorption	2.5 / *	%	Sim. to ISO 62
Density	1410 / –	kg/m³	ISO 1183

Tens. fatigue 8Hz, T, R=0.1 , dry



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