Property Data

Envalior
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Xytron™ G4010T

PPS–GF40

40% Glass Fiber Reinforced, Flame Retardant, High Flow

Print Date: 2025–12–11

PROPERTIES	TYPICAL DATA	UNIT	TEST METHOD
RHEOLOGICAL PROPERTIES	**VALUE**		
Molding shrinkage (parallel)	0.2	%	ISO 294–4
Molding shrinkage (normal)	0.5	%	ISO 294–4
MECHANICAL PROPERTIES	**VALUE**		
Tensile modulus	15000	MPa	ISO 527–1/–2
Tensile modulus (120°C)	7300	MPa	ISO 527–1/–2
Tensile modulus (160°C)	5200	MPa	ISO 527–1/–2
Tensile modulus (200°C)	3400	MPa	ISO 527–1/–2
Stress at break	200	MPa	ISO 527–1/–2
Stress at break (120°C)	105	MPa	ISO 527–1/–2
Stress at break (160°C)	73	MPa	ISO 527–1/–2
Stress at break (200°C)	55	MPa	ISO 527–1/–2
Strain at break	2	%	ISO 527–1/–2
Strain at break (120°C)	3.1	%	ISO 527–1/–2
Strain at break (160°C)	3.9	%	ISO 527–1/–2
Strain at break (200°C)	6.4	%	ISO 527–1/–2
Flexural modulus	14500	MPa	ISO 178
Flexural strength	300	MPa	ISO 178
Flexural modulus (120°C)	10000	MPa	ISO 178
Flexural modulus (160°C)	5000	MPa	ISO 178
Flexural modulus (200°C)	4200	MPa	ISO 178
Charpy impact strength (+23°C)	56	kJ/m²	ISO 179/1eU
Charpy impact strength (–30°C)	57	kJ/m²	ISO 179/1eU

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Charpy notched impact strength (+23°C)	10	kJ/m²	ISO 179/1eA
Charpy notched impact strength (–30°C)	10	kJ/m²	ISO 179/1eA
Izod impact strength (+23°C)	48	kJ/m²	ISO 180/1U
Izod notched impact strength (+23°C)	10.5	kJ/m²	ISO 180/1A
Rockwell hardness, R scale	121	–	ISO 2039–2
Rockwell hardness, M scale	100	–	ISO 2039–2

THERMAL PROPERTIES	VALUE		
Melting temperature (10°C/min)	280	°C	ISO 11357–1/–3
Temp. of deflection under load (1.80 MPa)	265	°C	ISO 75–1/–2
Coeff. of linear therm. expansion (parallel)	0.15	E–4/°C	ISO 11359–1/–2
Coeff. of linear therm. expansion (normal)	0.4	E–4/°C	ISO 11359–1/–2
Coef. of lin. therm expansion, parallel, above Tg	0.15	E–4/°C	ISO 11359–1/–2
Coef. of lin. therm expansion, normal, above Tg	1.1	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	130	°C	UL746B
RTI electrical (Thickness (1) tested)	0.8	mm	UL746B
Thermal conductivity in plane	0.4	W/(m K)	ASTM E1461
Thermal conductivity through plane	0.33	W/(m K)	ASTM E1461

ELECTRICAL PROPERTIES	VALUE		
Volume resistivity	>1E13	Ohm*m	IEC 62631–3–1
Electric strength	31	kV/mm	IEC 60243–1
Comparative tracking index	175	V	IEC 60112

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Dissipation factor (5GHz)	55	E–4	IEC 61189–2–721
Relative permittivity (5GHz)	4	–	IEC 61189–2–721

OTHER PROPERTIES	VALUE		
Density	1650	kg/m³	ISO 1183
Humidity absorption	0.04	%	Sim. to ISO 62