

# Xytron™ G4012T

## PPS–GF40

40% Glass Reinforced, Halogen free, Chlorine Content < 900 ppm

Print Date: 2024–03–27

PROPERTIES	TYPICAL DATA	UNIT	TEST METHOD
<b>RHEOLOGICAL PROPERTIES</b>			
	VALUE		
Molding shrinkage (parallel)	0.2	%	ISO 294–4
Molding shrinkage (normal)	0.5	%	ISO 294–4
<b>MECHANICAL PROPERTIES</b>			
	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/m <sup>2</sup>	ISO 179/1eU
Charpy impact strength (–30°C)	57	kJ/m <sup>2</sup>	ISO 179/1eU

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Charpy notched impact strength (+23°C)	11	kJ/m <sup>2</sup>	ISO 179/1eA
Charpy notched impact strength (-30°C)	11	kJ/m <sup>2</sup>	ISO 179/1eA
Izod impact strength (+23°C)	48	kJ/m <sup>2</sup>	ISO 180/1U
Izod notched impact strength (+23°C)	11	kJ/m <sup>2</sup>	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)	0.16	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	0.13	E-4/°C	ISO 11359-1/-2
Coef. of lin. therm expansion, normal, above Tg	0.85	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

ELECTRICAL PROPERTIES	VALUE		
Volume resistivity	>1E13	Ohm*m	IEC 62631-3-1
Electric strength	32	kV/mm	IEC 60243-1
Comparative tracking index	175	V	IEC 60112
Dielectric strength	31	kV/mm	IEC 60234
Dissipation factor (5GHz)	55	E-4	IEC 61189-2-721

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Relative permittivity (5GHz)	4	–	IEC 61189-2-721
<b><i>OTHER PROPERTIES</i></b>			
	<b><i>VALUE</i></b>		
Density	1650	kg/m <sup>3</sup>	ISO 1183
Humidity absorption	0.04	%	Sim. to ISO 62

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