

Xytron[™] G4010E PPS-I-GF40

40% Glass Reinforced, Improved Impact

RHEOLOGICAL PROPERTIES VALUE Molding shrinkage (parallel) 0.2 % ISO 294-4 Molding shrinkage (normal) 0.5 % ISO 294-4 MECHANICAL PROPERTIES VALUE	PROPERTIES	TYPICAL DATA	UNIT	TEST METHOD
Molding shrinkage (normal) 0.5 % ISO 294-4 MECHANICAL PROPERTIES VALUE Tensile modulus 12000 MPa ISO 527-1/-2 Tensile modulus (120°C) 6100 MPa ISO 527-1/-2 Tensile modulus (160°C) 3900 MPa ISO 527-1/-2 Tensile modulus (200°C) 3000 MPa ISO 527-1/-2 Tensile modulus (200°C) 3000 MPa ISO 527-1/-2 Stress at break 160 MPa ISO 527-1/-2 Stress at break (120°C) 65 MPa ISO 527-1/-2 Stress at break (120°C) 65 MPa ISO 527-1/-2 Stress at break (160°C) 50 MPa ISO 527-1/-2 Stress at break (160°C) 40 MPa ISO 527-1/-2 Strain at break (200°C) 40 MPa ISO 527-1/-2 Strain at break (160°C) 44 % ISO 527-1/-2 Strain at break (160°C) 4.4 % ISO 527-1/-2 Strain at break (160°C) 4.4 % ISO 527-1/-2 <tr< td=""><td>RHEOLOGICAL PROPERTIES</td><td>VALUE</td><td></td><td></td></tr<>	RHEOLOGICAL PROPERTIES	VALUE		
MECHANICAL PROPERTIES VALUE Tensile modulus 12000 MPa ISO 527-1/-2 Tensile modulus (120°C) 6100 MPa ISO 527-1/-2 Tensile modulus (160°C) 3900 MPa ISO 527-1/-2 Tensile modulus (200°C) 3000 MPa ISO 527-1/-2 Stress at break 160 MPa ISO 527-1/-2 Stress at break (120°C) 65 MPa ISO 527-1/-2 Stress at break (120°C) 50 MPa ISO 527-1/-2 Stress at break (120°C) 40 MPa ISO 527-1/-2 Strain at break (200°C) 40 MPa ISO 527-1/-2 Strain at break (120°C) 3.9 % ISO 527-1/-2 Strain at break (120°C) 3.9 % ISO 527-1/-2 Strain at break (160°C) 4.4 % ISO 527-1/-2 <tr< td=""><td>Molding shrinkage (parallel)</td><td>0.2</td><td>%</td><td>ISO 294-4</td></tr<>	Molding shrinkage (parallel)	0.2	%	ISO 294-4
Tensile modulus 12000 MPa ISO 527-1/-2 Tensile modulus (120°C) 6100 MPa ISO 527-1/-2 Tensile modulus (160°C) 3900 MPa ISO 527-1/-2 Tensile modulus (200°C) 3000 MPa ISO 527-1/-2 Stress at break 160 MPa ISO 527-1/-2 Stress at break (120°C) 65 MPa ISO 527-1/-2 Stress at break (160°C) 50 MPa ISO 527-1/-2 Stress at break (160°C) 50 MPa ISO 527-1/-2 Stress at break (120°C) 65 MPa ISO 527-1/-2 Stress at break (160°C) 50 MPa ISO 527-1/-2 Strain at break (200°C) 40 MPa ISO 527-1/-2 Strain at break (120°C) 3.9 % ISO 527-1/-2 Strain at break (120°C) 3.9 % ISO 527-1/-2 Strain at break (160°C) 4.4 % ISO 527-1/-2 Strain at break (200°C) 4.5 % ISO 527-1/-2 Strain at break (200°C) 4.5 % ISO 527-1/-2 Strain at break (200°C) 4.5	Molding shrinkage (normal)	0.5	%	ISO 294–4
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Tensile modulus (120°C) 6100 MPa ISO 527-1/-2 Tensile modulus (160°C) 3900 MPa ISO 527-1/-2 Tensile modulus (200°C) 3000 MPa ISO 527-1/-2 Stress at break 160 MPa ISO 527-1/-2 Stress at break (120°C) 65 MPa ISO 527-1/-2 Stress at break (160°C) 65 MPa ISO 527-1/-2 Stress at break (200°C) 40 MPa ISO 527-1/-2 Stress at break (200°C) 40 MPa ISO 527-1/-2 Strain at break (200°C) 40 MPa ISO 527-1/-2 Strain at break (200°C) 40 MPa ISO 527-1/-2 Strain at break (120°C) 3.9 % ISO 527-1/-2 Strain at break (120°C) 3.9 % ISO 527-1/-2 Strain at break (120°C) 4.4 % ISO 527-1/-2 Strain at break (200°C) 4.5 % ISO 527-1/-2 Flexural modulus 10000 MPa ISO 178 Flexural modulus 1200°C) 4.5	MECHANICAL PROPERTIES	VALUE		
Tensile modulus (160°C) 3900 MPa ISO 527-1/-2 Tensile modulus (200°C) 3000 MPa ISO 527-1/-2 Stress at break 160 MPa ISO 527-1/-2 Stress at break (120°C) 65 MPa ISO 527-1/-2 Stress at break (120°C) 65 MPa ISO 527-1/-2 Stress at break (200°C) 40 MPa ISO 527-1/-2 Stress at break (200°C) 40 MPa ISO 527-1/-2 Strain at break (200°C) 40 MPa ISO 527-1/-2 Strain at break (200°C) 3.9 % ISO 527-1/-2 Strain at break (160°C) 3.9 % ISO 527-1/-2 Strain at break (160°C) 4.4 % ISO 527-1/-2 Strain at break (160°C) 4.4 % ISO 527-1/-2 Strain at break (200°C) 4.5 % ISO 527-1/-2 Strain at break (200°C) 4.5 % ISO 527-1/-2 Flexural modulus 10000 MPa ISO 178 Flexural modulus 120°C) 8500	Tensile modulus	12000	MPa	ISO 527-1/-2
Tensile modulus (200°C) 3000 MPa ISO 527-1/-2 Stress at break 160 MPa ISO 527-1/-2 Stress at break (120°C) 65 MPa ISO 527-1/-2 Stress at break (160°C) 50 MPa ISO 527-1/-2 Stress at break (200°C) 40 MPa ISO 527-1/-2 Stress at break (200°C) 40 MPa ISO 527-1/-2 Strain at break (200°C) 40 MPa ISO 527-1/-2 Strain at break (120°C) 3.9 % ISO 527-1/-2 Strain at break (160°C) 4.4 % ISO 527-1/-2 Strain at break (160°C) 4.4 % ISO 527-1/-2 Strain at break (200°C) 4.5 % ISO 527-1/-2 Strain at break (200°C) 4.5 % ISO 527-1/-2 Flexural modulus 10000 MPa ISO 178 Flexural modulus 1200°C) 8500 MPa ISO 178 Flexural modulus (120°C) 8500 MPa ISO 178 Flexural modulus (200°C) 3100 MPa <t< td=""><td>Tensile modulus (120°C)</td><td>6100</td><td>MPa</td><td>ISO 527-1/-2</td></t<>	Tensile modulus (120°C)	6100	MPa	ISO 527-1/-2
Stress at break 160 MPa ISO 527-1/-2 Stress at break (120°C) 65 MPa ISO 527-1/-2 Stress at break (160°C) 50 MPa ISO 527-1/-2 Stress at break (200°C) 40 MPa ISO 527-1/-2 Stress at break (200°C) 40 MPa ISO 527-1/-2 Strain at break (200°C) 40 MPa ISO 527-1/-2 Strain at break (120°C) 3.9 % ISO 527-1/-2 Strain at break (160°C) 4.4 % ISO 527-1/-2 Strain at break (160°C) 4.4 % ISO 527-1/-2 Strain at break (200°C) 4.5 % ISO 527-1/-2 Strain at break (200°C) 4.4 % ISO 527-1/-2 Strain at break (200°C) 4.5 % ISO 527-1/-2 Flexural modulus 10000 MPa ISO 178 Flexural modulus 1200°C) 8500 MPa ISO 178 Flexural modulus (120°C) 4600 MPa ISO 178 Flexural modulus (200°C) 3100 MPa I	Tensile modulus (160°C)	3900	MPa	ISO 527-1/-2
Stress at break (120°C) 65 MPa ISO 527-1/-2 Stress at break (160°C) 50 MPa ISO 527-1/-2 Stress at break (200°C) 40 MPa ISO 527-1/-2 Strain at break (200°C) 40 MPa ISO 527-1/-2 Strain at break (120°C) 3.9 % ISO 527-1/-2 Strain at break (120°C) 3.9 % ISO 527-1/-2 Strain at break (160°C) 4.4 % ISO 527-1/-2 Strain at break (200°C) 4.5 % ISO 527-1/-2 Strain at break (200°C) 4.5 % ISO 527-1/-2 Strain at break (200°C) 4.5 % ISO 527-1/-2 Flexural modulus 10000 MPa ISO 178 Flexural modulus 10000 MPa ISO 178 Flexural modulus (120°C) 8500 MPa ISO 178 Flexural modulus (160°C) 4600 MPa ISO 178 Flexural modulus (200°C) 3100 MPa ISO 178 Charpy impact strength (+23°C) 55 kJ/m² <	Tensile modulus (200°C)	3000	MPa	ISO 527-1/-2
Stress at break (160°C) 50 MPa ISO 527-1/-2 Stress at break (200°C) 40 MPa ISO 527-1/-2 Strain at break 2.4 % ISO 527-1/-2 Strain at break (120°C) 3.9 % ISO 527-1/-2 Strain at break (120°C) 3.9 % ISO 527-1/-2 Strain at break (160°C) 4.4 % ISO 527-1/-2 Strain at break (200°C) 4.5 % ISO 527-1/-2 Strain at break (200°C) 4.5 % ISO 527-1/-2 Flexural modulus 10000 MPa ISO 527-1/-2 Flexural modulus 10000 MPa ISO 527-1/-2 Flexural modulus 1200°C) 4.5 % ISO 527-1/-2 Flexural modulus 1200°C) 4.5 % ISO 178 Flexural modulus (120°C) 8500 MPa ISO 178 Flexural modulus (160°C) 4600 MPa ISO 178 Flexural modulus (200°C) 3100 MPa ISO 178 Charpy impact strength (+23°C) 55	Stress at break	160	MPa	ISO 527-1/-2
Stress at break (200°C) 40 MPa ISO 527-1/-2 Strain at break 2.4 % ISO 527-1/-2 Strain at break (120°C) 3.9 % ISO 527-1/-2 Strain at break (160°C) 4.4 % ISO 527-1/-2 Strain at break (160°C) 4.4 % ISO 527-1/-2 Strain at break (200°C) 4.5 % ISO 527-1/-2 Strain at break (200°C) 4.5 % ISO 527-1/-2 Flexural modulus 10000 MPa ISO 178 Flexural modulus 10000 MPa ISO 178 Flexural strength 230 MPa ISO 178 Flexural modulus (120°C) 8500 MPa ISO 178 Flexural modulus (160°C) 4600 MPa ISO 178 Flexural modulus (200°C) 3100 MPa ISO 178 Charpy impact strength (+23°C) 55 kJ/m² ISO 179/1eU	Stress at break (120°C)	65	MPa	ISO 527-1/-2
Strain at break 2.4 % ISO 527-1/-2 Strain at break (120°C) 3.9 % ISO 527-1/-2 Strain at break (160°C) 4.4 % ISO 527-1/-2 Strain at break (200°C) 4.5 % ISO 527-1/-2 Strain at break (200°C) 4.5 % ISO 527-1/-2 Flexural modulus 10000 MPa ISO 178 Flexural modulus (120°C) 8500 MPa ISO 178 Flexural modulus (120°C) 4600 MPa ISO 178 Flexural modulus (120°C) 3100 MPa ISO 178 Flexural modulus (160°C) 55 kJ/m² ISO 179/1eU	Stress at break (160°C)	50	MPa	ISO 527-1/-2
Strain at break (120°C) 3.9 % ISO 527-1/-2 Strain at break (160°C) 4.4 % ISO 527-1/-2 Strain at break (200°C) 4.5 % ISO 527-1/-2 Flexural modulus 10000 MPa ISO 178 Flexural modulus (120°C) 8500 MPa ISO 178 Flexural modulus (120°C) 8500 MPa ISO 178 Flexural modulus (160°C) 4600 MPa ISO 178 Flexural modulus (200°C) 3100 MPa ISO 178 Charpy impact strength (+23°C) 55 kJ/m² ISO 179/1eU	Stress at break (200°C)	40	MPa	ISO 527-1/-2
Strain at break (160°C) 4.4 % ISO 527-1/-2 Strain at break (200°C) 4.5 % ISO 527-1/-2 Flexural modulus 10000 MPa ISO 178 Flexural strength 230 MPa ISO 178 Flexural modulus (120°C) 8500 MPa ISO 178 Flexural modulus (160°C) 4600 MPa ISO 178 Flexural modulus (200°C) 3100 MPa ISO 178 Charpy impact strength (+23°C) 55 kJ/m² ISO 179/1eU	Strain at break	2.4	%	ISO 527-1/-2
Strain at break (200°C) 4.5 % ISO 527–1/–2 Flexural modulus 10000 MPa ISO 178 Flexural strength 230 MPa ISO 178 Flexural modulus (120°C) 8500 MPa ISO 178 Flexural modulus (160°C) 4600 MPa ISO 178 Flexural modulus (200°C) 3100 MPa ISO 178 Charpy impact strength (+23°C) 55 kJ/m² ISO 179/1eU	Strain at break (120°C)	3.9	%	ISO 527-1/-2
Flexural modulus 10000 MPa ISO 178 Flexural strength 230 MPa ISO 178 Flexural modulus (120°C) 8500 MPa ISO 178 Flexural modulus (160°C) 4600 MPa ISO 178 Flexural modulus (200°C) 3100 MPa ISO 178 Charpy impact strength (+23°C) 55 kJ/m² ISO 179/1eU	Strain at break (160°C)	4.4	%	ISO 527-1/-2
Flexural strength 230 MPa ISO 178 Flexural modulus (120°C) 8500 MPa ISO 178 Flexural modulus (160°C) 4600 MPa ISO 178 Flexural modulus (200°C) 3100 MPa ISO 178 Charpy impact strength (+23°C) 55 kJ/m² ISO 179/1eU	Strain at break (200°C)	4.5	%	ISO 527-1/-2
Flexural modulus (120°C) 8500 MPa ISO 178 Flexural modulus (160°C) 4600 MPa ISO 178 Flexural modulus (200°C) 3100 MPa ISO 178 Charpy impact strength (+23°C) 55 kJ/m² ISO 179/1eU	Flexural modulus	10000	MPa	ISO 178
Flexural modulus (160°C) 4600 MPa ISO 178 Flexural modulus (200°C) 3100 MPa ISO 178 Charpy impact strength (+23°C) 55 kJ/m² ISO 179/1eU	Flexural strength	230	MPa	ISO 178
Flexural modulus (200°C)3100MPaISO 178Charpy impact strength (+23°C)55kJ/m²ISO 179/1eU	Flexural modulus (120°C)	8500	MPa	ISO 178
Charpy impact strength (+23°C)55kJ/m²ISO 179/1eU	Flexural modulus (160°C)	4600	MPa	ISO 178
	Flexural modulus (200°C)	3100	MPa	ISO 178
Charpy impact strength (-30°C) 65 kJ/m² ISO 179/1eU	Charpy impact strength (+23°C)	55	kJ/m²	ISO 179/1eU
	Charpy impact strength (-30°C)	65	kJ/m²	ISO 179/1eU

Print Date: 2024-11-12

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Property Data Xytron[™] G4010E

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PROPERTIES	TYPICAL DATA	UNIT	TEST METHOD
Charpy notched impact strength (+23°C)	16	kJ/m²	ISO 179/1eA
Charpy notched impact strength (-30°C)	12	kJ/m²	ISO 179/1eA
Izod impact strength (+23°C)	60	kJ∕m²	ISO 180/1U
Izod notched impact strength (+23°C)	17.5	kJ∕m²	ISO 180/1A
Izod notched impact strength (-40°C)	13	kJ/m²	ISO 180/1A
THERMAL PROPERTIES	VALUE		
Melting temperature (10°C/min)	280	°C	ISO 11357-1/-3
Temp. of deflection under load (1.80 MPa)	258	°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)	0.55	E-4/°C	ISO 11359-1/-2
Coef. of lin. therm expansion, parallel, above Tg	0.11	E-4/°C	ISO 11359-1/-2
Coef. of lin. therm expansion, normal, above Tg	1.1	E-4/°C	ISO 11359-1/-2
ELECTRICAL PROPERTIES	VALUE		
Volume resistivity	>1E13	Ohm*m	IEC 62631-3-1
Electric strength	33	kV/mm	IEC 60243-1
Comparative tracking index	175	V	IEC 60112
Dissipation factor (5GHz)	55	E-4	IEC 61189-2-721
Relative permittivity (5GHz)	3.8	_	IEC 61189-2-721
OTHER PROPERTIES	VALUE		
Density	1530	kg/m³	ISO 1183
Humidity absorption	0.04	%	Sim. to ISO 62

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