ROGERS CORPORATION

Data Sheet

Property	Typical Value RT/duroid 6002	Direction	Units [1]	Conditions	Test Method
Dielectric Constant, ε_r Process	2.94 ± 0.04	Z	-	10GHz/23°C	IPC-TM-650, 2.5.5.5
[2]Dielectric Constant, ε_r Design	2.94			8GHz-40GHz	Differential Phase Length Method
Dissipation Factor, TAN δ	0.0012	Z	-	10 GHz/23°C	IPC-TM-650, 2.5.5.5
Thermal Coefficient of ε_r	+12	Z	ppm/°C	10 GHz 0-100°C	IPC-TM-650, 2.5.5.5
Volume Resistivity	10^6	Z	Mohm cm	A	ASTM D257
Surface Resistivity	10^7	Z	Mohm	A	ASTM D257
Tensile Modulus	828 (120)	X,Y	MPa (kpsi)	23°C	ASTM D638
Ultimate Stress	6.9 (1.0)	X,Y	MPa (kpsi)		
Ultimate Strain	7.3	X,Y	%		
Compressive Modulus	2482 (360)	Z	MPa (kpsi)		ASTM D638
Moisture Absorption	0.02	-	%	D48/50	IPC-TM-650, 2.6.2.1 ASTM D570
Thermal Conductivity	0.60	-	W/m/K	80°C	ASTM C518
Coefficient of Thermal Expansion (-55 to 288 °C)	16 16 24	X Y Z	ppm/°C	23°C/50% RH	IPC-TM-650 2.4.41
Td	500		°C TGA		ASTM D3850
Density	2.1		gm/cm3		ASTM D792
Specific Heat	0.93 (0.22)	-	J/g/K (BTU/lb/°F)	-	Calculated
Copper Peel	8.9 (1.6)		lbs/in (N/mm)		IPC-TM-650 2.4.8
Flammability	V-O				UL94
Lead-Free Process Compatible	YES				

NOTES:
Typical values are a representation of an average value of the population of the property. For specification values contact Rogers Corporation.
[1] S1 Units given first, with other frequently used units in parentheses.
[2] The design Dk is an average number from several different tested lots of material and on the most common thickness/s. If more detailed information is required please contact Rogers Corporation or refer to Roger's technical reports on the Rogers Technology Support Hub at http://www.rogerscorp.com.

Standard Thickness	Standard Panel Size	Standard Copper Cladding	Non-Standard Copper Cladding
0.005" (0.127mm) 0.010" (0.254mm) 0.020" (0.508mm) 0.030" (0.762mm) 0.060" (1.524mm) 0.120" (3.048mm) **Non-Standard Thickness** 0.015" (0.381mm) 0.025" (0.635mm) 0.035" (0.889mm) 0.040" (1.016mm) 0.050" (1.270mm) 0.090" (2.286mm) 0.100" (2.540mm) 0.125" (3.175mm)	18" X 12" (457mm X 305mm) 18" X 24" (457mm X 610mm) Non-standard panel sizes are available up to 24" X 54" (610mm X 1.37m)	½ oz. (18µm) and 1oz (35µm) electrodeposited and rolled copper cladding	¼ oz. (9µm) electrodeposited copper cladding 2 oz. (70µm) electrodeposited and rolled copper cladding ½ oz. (18µm), 1oz (35µm) and 2 oz. (70µm) reverse treated copper cladding
		Thick metal cladding may be available based on dielectric and plate thickness. Please contact customer service for more information on available non-standard and custom thicknesses, claddings and panel sizes	