ROGERS CORPORATION

Property	Typical Value	Direction	Units	Conditions	Test Method
Dielectric Constant ε_r	2.90 ± 0.04[3]	Z	-	10GHz/23°C	IPC-TM-650, 2.5.5.5
Dissipation Factor, TAN δ	0.0015	Z	-	10 GHz/23°C	IPC-TM-650, 2.5.5.5
Thermal Coefficient of ε_r	+5	Z	ppm/°C	10 GHz -50 to +150°C	IPC-TM-650, 2.5.5.5
Volume Resistivity	10^6	Z	Mohm cm	A	ASTM D257
Surface Resistivity	10^9	Z	Mohm	A	ASTM D257
Tensile Modulus	1007 (146)	X, Y	MPa (kpsi)	23°C	ASTM D638
Ultimate Stress	30 (4.3)	X, Y	MPs (kpsi)		
Ultimate Strain	4.9	X, Y	%		
Compressive Modulus	1035 (150)	Z	MPa (kpsi)		ASTM D638
Moisture Absorption	0.04	-	%	D23/24 D48/50	IPC-TM-650, 2.6.2.1 ASTM D570
Thermal Conductivity	0.68	-	W/m/K	80°C	ASTM C518
Coefficient of Thermal Expansion (-55 to 288 °C)	15 15 30	X Y Z	ppm/°C	23°C/50% RH	IPC-TM-650 2.4.41
Dimensional Stability	0.07	X, Y	mm/m (mil/inch)	after etch +E/150	IPC-TM-650, 2.4.3.9
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	9.1 (1.6)		lbs/in (N/mm)		IPC-TM-650 2.4.8
Flammability	V-O				UL 94
Lead-Free Process Compatible	YES				

Standard Thickness	Standard Panel Size	Standard Copper Cladding	Non-Standard Copper Cladding
0.005" (0.127mm) 0.010" (0.254mm) 0.015" (0.381mm) 0.020" (0.508mm) 0.030" (0.762mm) 0.060" (1.524mm)	12" X 18" (305mm X 457) 24" X 18" (610mm X 457) Non-standard sizes are available up to 24" X 54" (610mm X 1.37m)	½ oz. (18µm) and 1oz. (35µm) electrodeposited and rolled copper foils	¼ oz. (9µm) electrodeposited copper foil 2 oz. (70µm) electrodeposited and rolled copper foils ½ oz. (18µm), 1oz. (35µm), and 2 oz. (70µm) reverse treated EDC copper foil
		RT/duroid 6202 laminates are not available with thick metal cladding. Contact customer service for more information on available non-standard and custom claddings and panel sizes	