

Property	Typical Value [1] RT/duroid® 5880LZ	Direction	Units	Condition	Test Method
Dielectric Constant ϵ_r Process	2.00 ± 0.04	Z		10 GHz/23°C	IPC-TM-650, 2.5.5.5
[2] Dielectric Constant ϵ_r Design	2.00	Z		8 GHz - 40 GHz	Differential Phase Length Method
Dissipation Factor, tan	Typ: 0.0021 Max: 0.0027	Z		10GHz/23°C	IPC-TM-650, 2.5.5.5
Thermal Coefficient of Dielectric Constant, ϵ_r	+20	Z	ppm/°C	-50°C to 150°C 10GHz	IPC-TM-650, 2.5.5.5
Volume Resistivity	1.74 X 10 ⁷		Mohm-cm	C-96/35/90	IPC-TM-650, 2.5.17.1
Surface Resistivity	2.08 X 10 ⁶		Mohm	C-96/35/90	IPC-TM-650, 2.5.17.1
Electrical Strength	40		kV	D48/50	IPC-TM-650, 2.5.6
Dimensional Stability	-0.38	X,Y	%		IPC-TM-650, 2.4.39A
Moisture Absorption	0.31		%	24 hours/23°C	IPC-TM-650, 2.6.2.1
Thermal Conductivity	0.33	Z	W/m ² K	80°C	ASTM C518
Coefficient of Thermal Expansion	54,47 40	X,Y Z	ppm/°C	0 to 150°C	IPC-TM-650, 2.4.41
Outgassing					
	TML 0.01		%		ASTM E-595
	CVCM 0.01				
	WVR 0.01				
Density	1.4		gm/cm ³		ASTM D792
Copper Peel	>4.0		pli		IPC-TM-650, 2.4.8
Flammability	V-O				UL 94
Lead-Free Process Compatible	YES				

- NOTES:
 [1] Typical values are a representation of an average value for the population of the property. For specification values contact Rogers Corporation.
 [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 the Design Dk technical articles and presentations available at <http://www.rogerscorp.com>, the Rogers Technology Support Hub.

Standard Thickness	Standard Panel Size	Standard Copper Cladding
0.010" (0.254mm) ± 001 0.020" (0.508mm) ± 001 0.050" (1.270mm) ± 002 0.100" (2.540mm) ± 004	12" X 18" (305mm X 457mm) 24" X 18" (610mm X 457mm) Non-standard panel sizes are available up to 24" X 54" (610mm X 1.37m)	½ oz (18µm) and 1 oz (35µm) Electrodeposited copper foil on both sides

Contact customer service for more information on non-standard and custom thicknesses, claddings and panel sizes.