

RF-41 · RF-43 · RF-45

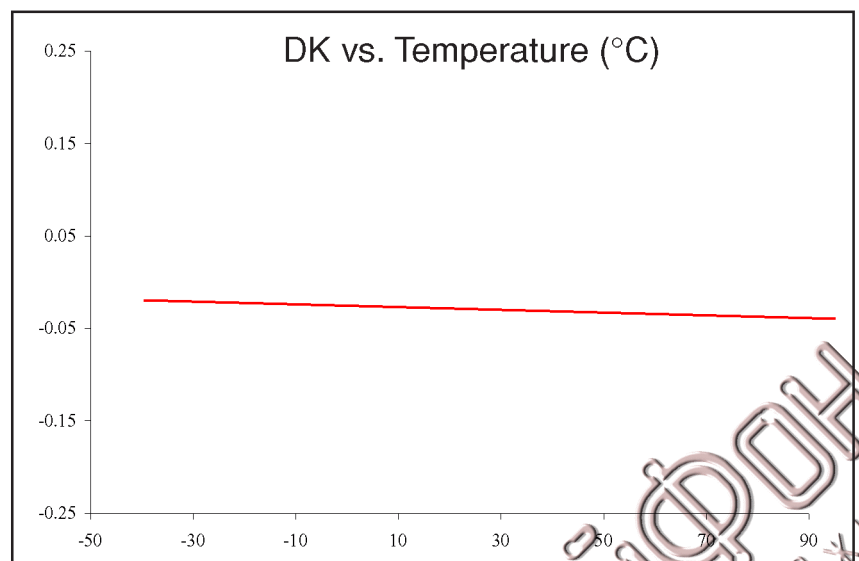
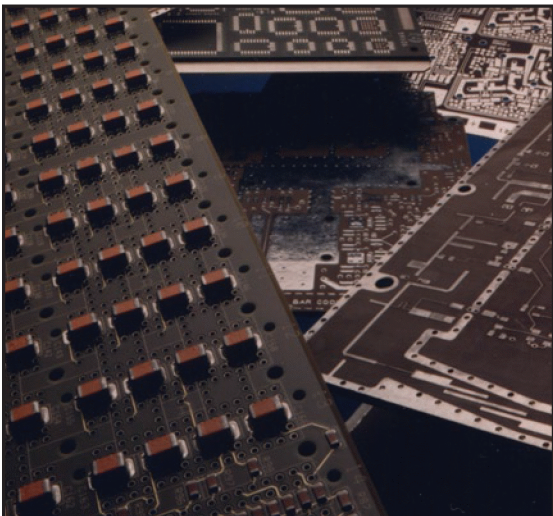
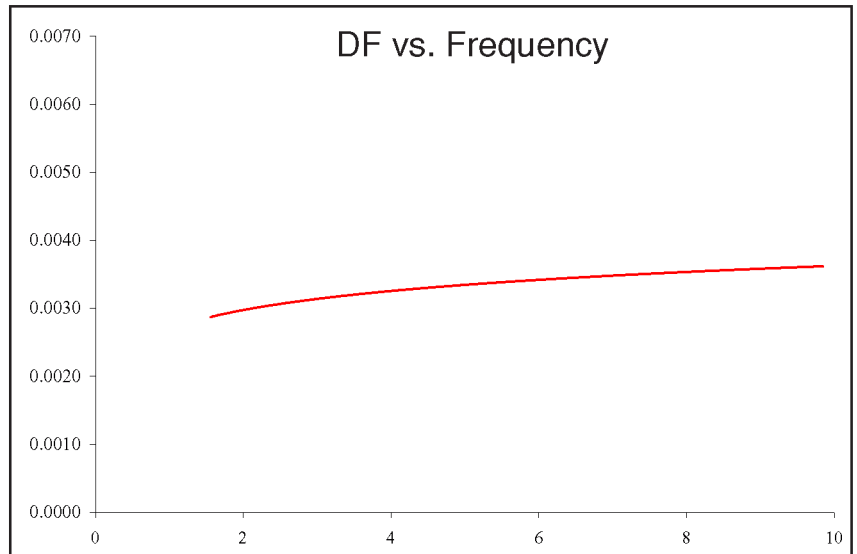
High Performance Laminates

Features:

- Low loss alternative to FR-4
- DK flat over temperature
- Stable DK & loss over frequency

Applications:

- Satellite Radio Antennas
- RFID Antennas
- GPS Antennas



RF-41, 43 & 45 Typical Values

Property	Test Method	Unit	Value		
Material			RF-41	RF-43	RF-45
Dielectric Constant (FSR)	IPC-TM-650 2.5.5.6		4.10	4.30	4.50
Dissipation Factor @ 10 GHz	IPC-TM-650 2.5.5.5.1		0.0038	0.0033	0.0037
Moisture Absorption	IPC-TM-650 2.6.2.1	%	≤0.02	≤0.02	≤0.04
Flexural Strength (MD)	ASTM D 790	psi	20,700	20,100	20,700
Flexural Strength (CD)	ASTM D 790	psi	18,500	18,800	19,300
Peel Strength (1 oz VLP)	IPC-TM-650 2.4.8 (Thermal Stress)	lbs/linear inch	8	7	10
Thermal Conductivity	ASTM F 433	W/m/K	0.29	0.30	0.33
Volume Resistivity	IPC-TM-650 2.5.17.1	Mohm/cm	1.4 x 10 ⁸	6.6 x 10 ⁷	1.4 x 10 ⁸
Surface Resistivity	IPC-TM-650 2.5.17.1	Mohm	1.2 x 10 ⁷	6.2 x 10 ⁵	3.3 x 10 ⁶
CTE (x)	IPC-TM-650-2.4.41 (>RT - 125°C)	ppm/°C	9	9	9
CTE (y)	IPC-TM-650-2.4.41 (>RT - 125°C)	ppm/°C	12	11	13
CTE (z)	IPC-TM-650-2.4.41 (>RT - 125°C)	ppm/°C	93	96	96
Flammability Rating	UL 94		V-0		

Designation - Prepregs	Dielectric Constant	Typical Thicknesses	Available Sheet Sizes	
RF-41	4.10 +/- 0.15	0.0200", 0.0250", 0.0310", 0.0620", 0.1250" 0.51 mm, 0.64 mm, 0.79 mm, 1.57 mm, 3.18 mm	12" x 18"	304 mm x 457 mm
RF-43	4.30 +/- 0.15		16" x 18"	406 mm x 457 mm
RF-45	4.50 +/- 0.15		18" x 24"	457 mm x 610 mm
			16" x 36"	406 mm x 914 mm
			24" x 36"	610 mm x 914 mm
			36" x 48"	914 mm x 1219 mm

Other thicknesses may be available. Please call for information.

Available Copper Cladding						
Designation	Weight	Copper Thickness		R _{MS} Treated Side		Description
RH	1/2 oz / ft ²	~0.0007	~18 μm	16 μin	0.4 μm	Rolled annealed
R1	1 oz / ft ²	~0.0014	~35 μm	11 μin	0.3 μm	Rolled annealed
CLH	1/2 oz / ft ²	~0.0007	~18 μm	13 μin	0.3 μm	Reverse treated / Electrodeposited
CL1	1 oz / ft ²	~0.0014	~35 μm	13 μin	0.3 μm	Reverse treated / Electrodeposited
CVH	1/2 oz / ft ²	~0.0007	~18 μm	13 μin	0.3 μm	Very low profile / Electrodeposited
CV1	1 oz / ft ²	~0.0014	~35 μm	25 μin	0.6 μm	Very low profile / Electrodeposited
C2	2 oz / ft ²	~0.0028	~70 μm	77 μin	2.0 μm	Electrodeposited

Heavy metal claddings (aluminum, brass & copper) may also be available upon request. Please call for information.

An example of our part number is: **RF-45-0250-CV1/CV1 - 18" x 24" (457 mm x 610 mm)**

TACONIC

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