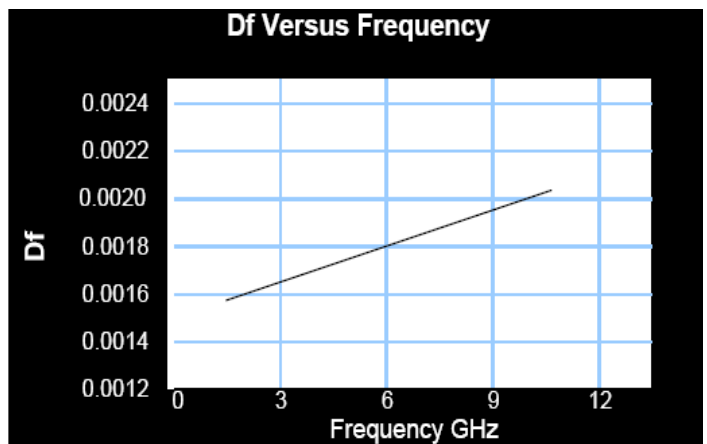
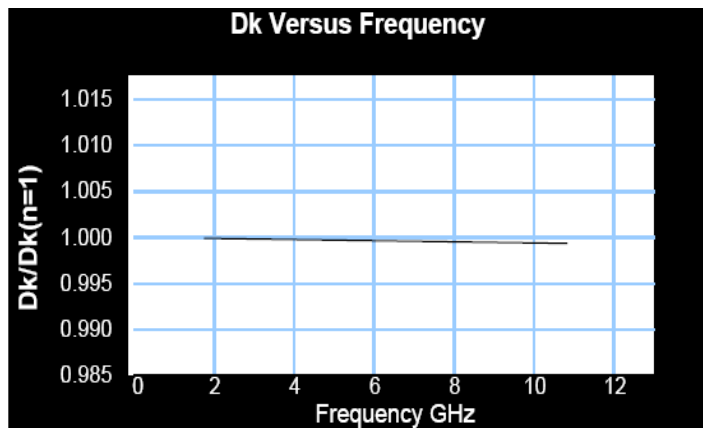


TLF-35-xxxx-A TYPICAL VALUES

Property	Test Method	Units	Value	Units	Value
Dielectric Constant @ 1.9 GHz	IPC-TM 650 2.5.5.5.1 Mod		3.50±0.05		3.50±0.05
Dissipation Factor @ 1.9 GHz	IPC-TM 650 2.5.5.5.1 Mod		0.0016		0.0016
Dissipation Factor @ 10 GHz	IPC-TM 650 2.5.5.5.1 Mod		0.0022		0.0022
Water absorption	IPC-TM 650 2.6.2.1	%	0.03	%	0.03
Peel Strength (1 oz. copper)	IPC-TM 650 2.4.8	Lbs./linear inch	10	N/mm	1.8
Volume Resistivity	IPC-TM 650 2.5.17.1	Mohm-cm	2.0 x 10 ⁹	Mohm-cm	2.0 x 10 ⁹
Surface Resistivity	IPC-TM 650 2.5.17.1	Mohm	3.0 x 10 ⁸	Mohm	3.0 x 10 ⁸
Flexural Strength Lengthwise	IPC-TM 650 2.4.4	psi	13,000	N/mm ²	90
Flexural Strength Crosswise	IPC-TM 650 2.4.4	psi	13,000	N/mm ²	90
Thermal Conductivity	IPC-TM-650 2.4.50	W/m/K	0.37	W/m/K	0.37
x-y CTE (50 ~ 150°C)	IPC-TM 650 2.4.41	ppm/°C	9-12	ppm/°C	9-12
z CTE (50 ~ 150°C)	IPC-TM 650 2.4.41	ppm/°C	80	ppm/°C	80
Flammability	UL-94		V-0		V-0

Type	Dk	
TLY-5A	2.17	
TLY-5	2.20	
TLY-3	2.33	
TLT-0	TLX-0	2.45
TLT-9	TLX-9	2.50
TLT-8	TLX-8	2.55
TLT-7	TLX-7	2.60
TLT-6	TLX-6	2.65
TLE-95	2.95	
TLC-27	2.75	
TLC-30	RF-30	3.00
TLC-32		3.20
TLF-35	3.50	
TLF-35-xxxx-A	3.50	
RF-35	RF-35A2	3.50
TRF-41		4.10
TRF-43		4.30
TRF-45		4.50
RF-60A		6.15
CER-10		10



All reported values are typical and should not be used for specification purposes. In all instances, the user shall determine suitability in any given application.

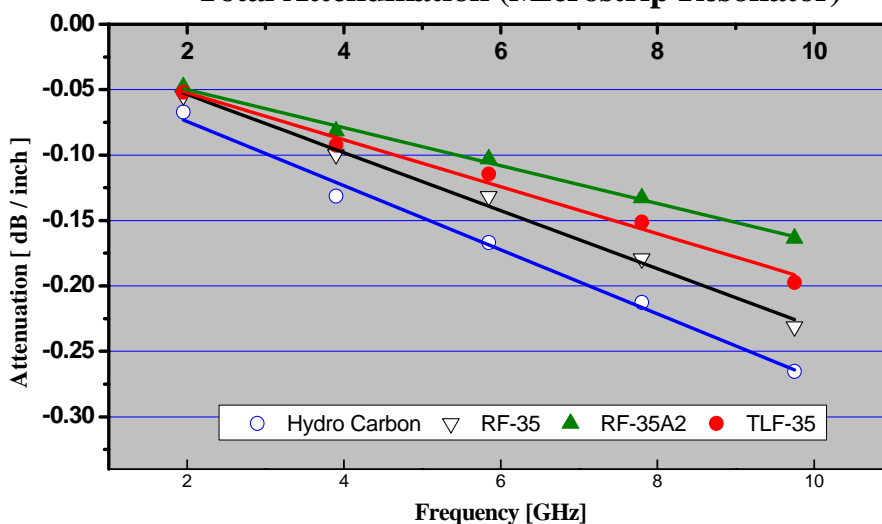
Designation	Dielectric Constant	Typical Thickness ¹		Typical Panel Size ²	
		Inches	mm		
TLF-35-xxxx-A	3.5 +/- 0.05	0.030"	0.76	12"x18"	305mmx457mm
		0.060"	1.52	16"x18"	406mmx457mm
				18"x24"	457mmx610mm
				36"x48"	914mmx1220mm

¹ TLF-35-xxxx-A series can be manufactured in increments of 0.030". Please call for availability of additional thicknesses.

² Our Standard sheet size is 36"x48"(914mm X 1220mm). Please contact our customer service department for availability of other sizes.

Available Copper Cladding						
Designation	Weight	Copper Thickness		R _{ms} Treated Side		Description
CVH (CH)	½ oz./sq. ft.	~ .0007"	~ 18µm	19µin	0.48µm	Very low profile / Electrodeposited
CV1 (C1)	1 oz./sq. ft.	~ .0014"	~ 35µm	25µin	0.64µm	Very low profile / Electrodeposited
CLH	½ oz./sq. ft.	~ .0007"	~ 18µm	18µin	0.46µm	Reverse Treated / Electrodeposited
CL1	1 oz./sq. ft.	~ .0014"	~ 35µm	16µin	0.41µm	Reverse Treated / Electrodeposited
C2	2 oz./sq. ft.	~ .0028"	~ 70µm	27µin	0.69µm	Electrodeposited

Total Attenuation (Microstrip Resonator)



Total Attenuation were measured with microstrip ring resonator. Material under test were 20mil dielectric thickness and 1 oz. copper.

An example of a 30mil material with 1 oz. RTF Copper on both sides is part# : TLF-35-0300-A-CL1/CL1-18" x 24"(TLF-35-0300-A-CL1/CL1-457mm x 610mm)