



# DLF

# PI

DLF

Low Loss MPI FCCL

LCP

UL94 VTM-0

RoHS

## FEATURES

Low dissipation loss approach to LCP  
Excellent soldering reliability, dimensional stability, chemical resistance and electrical properties.

Halogen free, flammability UL94 VTM-0.  
Compatible with EU RoHS directive, free of Pb,Hg,Cd, Cr<sup>6+</sup>,PBB,PBDE, etc..

## APPLICATIONS

Be used in high frequency multi-layer FPC and rigid-flex PCB as the bonding lay

## GENERAL PROPERTIES

Test Item	Test Method	Unit	IPC Standard *	Typical Value
				DLF 2012DR
Peel Strength 90°	IPC-TM-650, No.2.4.9	N/mm	25	0.86
	Method A			0.85
	Method C			
Thermal Stress	IPC-TM-650, No.2.4.13	-	Pass	Pass
Dimensional Stability	IPC-TM-650, No.2.2.4 Method B	%	±0.2	MD: -0.0584 TD: -0.0639
Chemical Resistance	IPC-TM-650, No.2.3.2	%		95
Moisture Absorption	IPC-TM-650, No.2.6.2	%	3	0.72
Volume Resistivity	IPC-TM-650, No.2.5.17	-cm	6	2.46×10 <sup>9</sup>
Surface Resistance	IPC-TM-650, No.2.5.17		5	3.87×10 <sup>6</sup>
10GHZ Dielectric Constant	IEC-61189-2-721	-	6	3.4
10GHZ Dissipation Factor	IEC-61189-2-721	-		0.0033
Dielectric Strength	IPC-TM-650, No.2.5.6.2		80	184

Remarks:\* Certified to IPC-4204/11 Copper Clad Adhesiveless

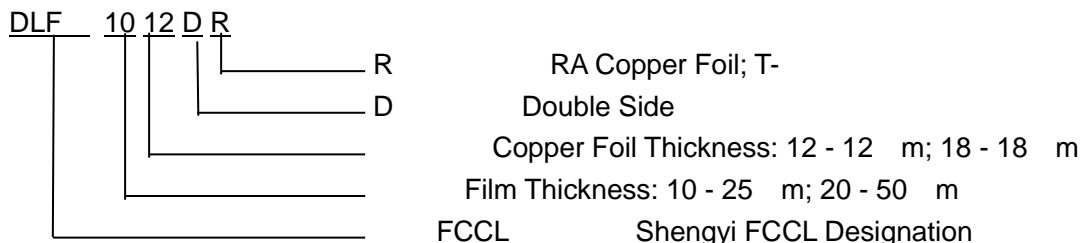


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### Product Code Description



### SPECIFICATIONS OF STANDARD PRODUCTS

Specifications			Copper Type	Applications
	film	Copper Foil		
DLF 1012DT	25	12		Smart phone antenna, Microwave communication, high speed network equipment etc.
DLF 2012DT	50	12		
DLF 1018DT	25	18		
DLF 2018DT	50	18		
DLF 1012DR	25	12	RA	
DLF 2012DR	50	12	RA	
DLF 1018DR	25	18	RA	
DLF 2018DR	50	18	RA	

### PURCHASING INFORMATION

250+2/-0mm 500+2/-0mm 50+1/-0 100+2/-0  
 DLF is supplied in rolls and standard width of 250+2/-0mm or 500+2/-0mm. Roll length is 50+1/-0m or 100+2/-0m. Other sizes could be available upon request.

### STORAGE CONDITION

5~35

Stored in dry room with humidity control and with no corrosive gases. One year when stored in the original packaging at temperature 5~35 humidity lower than 75%.