

ISOFOIL LF

Lead-free solders currently being used and developed for printed circuit assembly require higher processing temperatures that can degrade the base materials commonly used in printed circuits, resulting in decreased long-term reliability.

This Epoxy Novolac Resin Coated Copper Foil has been specially designed to withstand such higher temperatures.

Accurate coating thicknesses, combined with adjusted resin flow characteristics provide excellent hole filling and microvia quality.

The foil can be laminated in a conventional vacuum or any ADARA™ press and doesn't require necessarily pin lamination. The resin system is easily laser-ablated. Combined with the use of copper carrier supported ultra thin Doublethin® foils, optimum protection of the functional 5µm layer is achieved, resulting in excellent yield figures.

Copper Foil types:

- Very Low profile foil (LP4) with HTE characteristics
- Low profile foil HTE characteristics
- Ultra-thin foils with a copper carrier

Copper Foil Thickness:

- Carrier supported (either 1oz or 2oz copper carrier): 3/35µm 5/35µm 5/70µm 9/70µm
- Unsupported copper foils: 12µm 18µm 35µm

Resin Coating in B-stage:

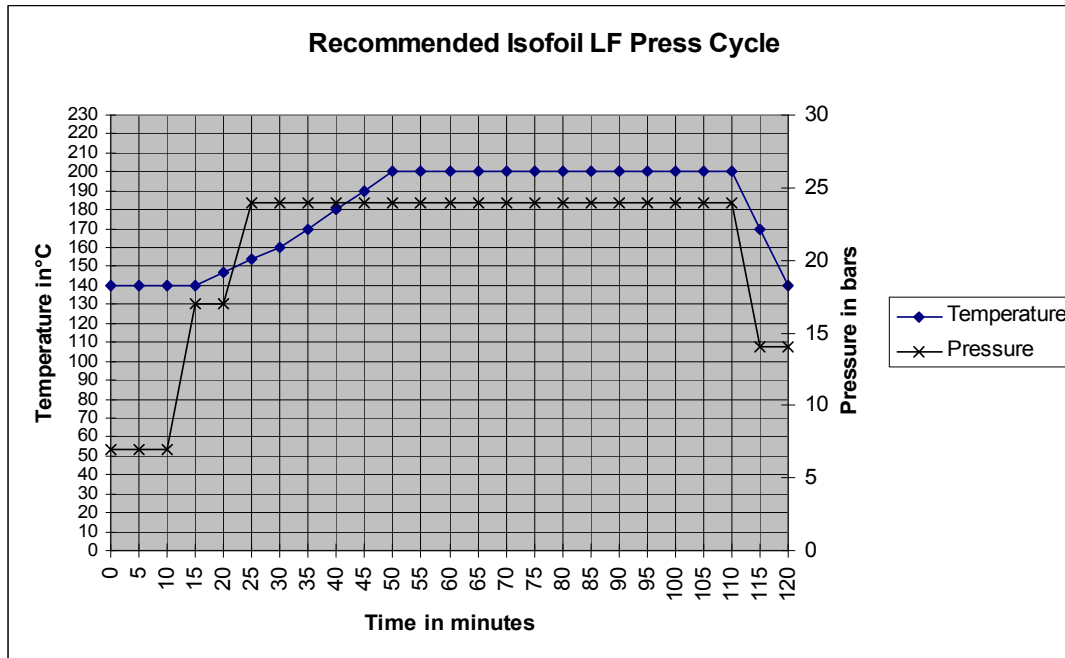
65µm 75µm other thickness on request

Typical average properties:

Parameter	Units	Value	Remark
Dielectric Constant ϵ_r at 1GHz/10GHz	-	3.42/3.33	
Dissipation Factor $\tan \delta$ at 1GHz/10GHz	-	0.035/0.04	
Tg	°C	> 160	Per DMA shear
Td 10% weight loss in N ²	°C	315°C	By TGA
T260	Min	60	
T288	Min	17	
Reflow Cycles before delamination		Min 6	At Peak T°=260°C for 10sec
Copper Peel Strength	N/mm	1.1	18µm LP4
Coefficient of Thermal Expansion (z-axis)	ppm/K	70	From RT to TG
Young's Modulus	GPa	2.2	
Flammability acc. UL-94	class	V0	E239919

Recommended Press Cycle:

Use a conventional vacuum press: vacuum at once



Typical Temperature Profile:

Heating from 140°C to 200°C in 35 minutes:
2°C/minute
Hold for 60 minutes
Cool down under pressure

Typical Pressure Profile:

20-25 bar for 85 minutes
Keep pressure during cooling

Recommended Storage Conditions:

Temperature: max. 15°C
Rel. humidity: 45 ± 5 % rel.
Shelf life: max. 90 days

Availability:

Isofoil LF is available in rolls with uncoated edges for ADARA™ press technology or in sheets with or without punched registration holes.

For further information, please contact:



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