Foil Coatings Luxembourg

Resin Coated Copper Foil

FCL-TRL

This Resin Coated Copper Foil is designed to improve the overall cosmetic and functional properties of the external circuitry. A thin, high TG resin film acts as additional dielectric spacer and helps for an easier handling of thin foils without carrier. A significant reduction of the top waviness on typical glass fabric styles is achieved allowing a better photo definition of the external circuitry.

Copper Foil types:

- Very Low profile foil 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
- Unsupported copper foils: 12µm 18µm 35µm 70µm

High coating precision:

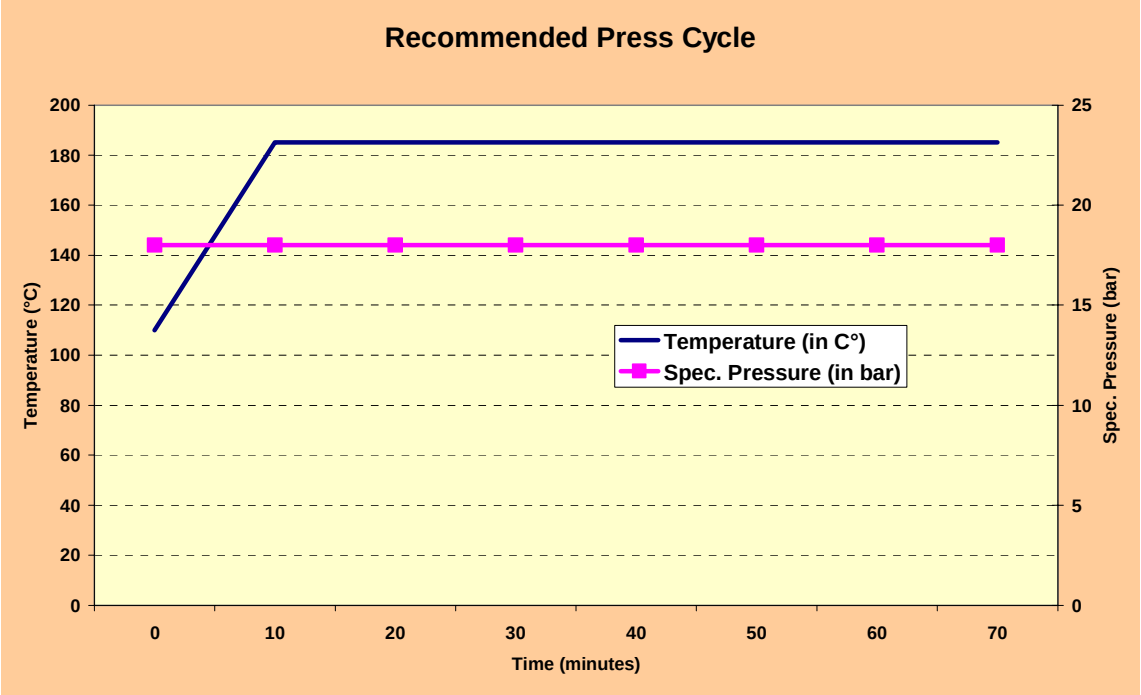
- Less than 2.5µm variation over roll length and width

Typical average properties:

Parameter	Units	Value	Condition
Resin thickness variation	µm	< 2µ	On 100% copper
Glass Transition Temperature TG (per DMA)	°C °C	>170 >180	Onset Middle Point
Gel time	Sec	< 20	
Copper Peel Strength: on FR4 12µm & 18µm 12µm & 18µm 5µm/35 (*) (*) after galvanic build- up to 35µ	 N/mm N/mm N/mm	 > 1.2 >1.0 >1.4	 10” at 288°C at 125°C 10” at 288°C
Dielectric Constant ε_r		3.53 3.30	@ 10 MHz @ 1 GHz
Dissipation Factor tan δ		0.024 0.019	@ 10 MHz @ 1 GHz
Surface resistance	MΩ MΩ	1.4 E+07 7.8 E+09	35°C/93% r.H. 125°C
Volume resistivity	MΩ* cm MΩ* cm	1.0 E+08 3.5 E+09	35°C/93% r.H. 125°C

Recommended Press Cycle:

Use a conventional vacuum press: vacuum at once



Typical Temperature Profile:

Start from 110°C to 185°C in 10 minutes:
7.5°C/minute
Hold for 70 minutes
Cool down under pressure

Typical Pressure Profile:

15-20 bar for 90 minutes
Keep pressure during cooling

Recommended Storage Conditions:

Temperature:	max. 25°C
Rel. humidity:	between 40 - 60 %
Shelf life:	max. 90 days

Availability:

FCL-TRL foil is available in rolls or in sheets with or without punched registration holes.

For further information, please contact:

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