

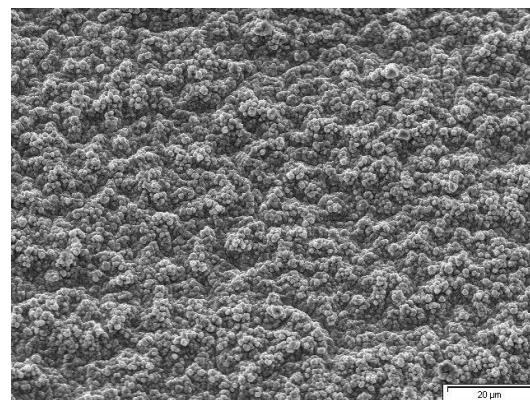
# LPT-YE

## Technical Characteristics

LPT-YE is an advanced matte-sided treated product based on a unique low profile base foil.

The foil is characterized by superior elastic modulus which is also preserved after the typical process for chip card modules. High mechanical properties ensure a perfect flatness of the foil inside the chip window.

The inorganic YE protection on the shiny foil surface ensures its superior resistance to oxidation in warm and humid environments.



Treatment side of 32 µm LPT-YE foil

The product is designed for IC card modules.

### Typical average properties\*

LPT-YE									
MEASURED PARAMETERS		UNITS	PRODUCT GAUGE				IPC		
Nominal Thickness		µm oz.	18 1/2	32 1	35 1	70 2	Specification IPC-4562A	Test Method IPC-TM-650	
Area Weight		oz/ft <sup>2</sup> g/m <sup>2</sup> g/254 in <sup>2</sup>	0.49 150 24.6	0.93 283 46.4	1.07 327 53.6	1.98 603 98.8	(a)1.2.5, table 1-1 (b)3.4.4 (c)4.6.3	2.2.12	
Untreated Side Roughness (Ra)			0.20 - 0.40 (8 - 16)				3.5.6		
Treated Side Roughness Rz		µm (µ.inch)	≤ 6 (≤ 236)			≤ 7.0 (≤ 276)		3.4.5	2.2.17
			≤ 5 (≤ 197)			≤ 5.8 (≤ 228)		-	
Tensile Strength Transverse at RT		MPa (k.Lb/in <sup>2</sup> )	≥ 379 (≥ 55)				3.5.1	2.4.18	
Tensile Strength Transverse at RT (aft. 2 hrs at 160 °C)			≥ 372 (≥ 54)				-		
Elongation Transverse at RT		%	≥ 8	≥ 10		≥ 15	3.5.3		
Yield Strength at RT (after 2 hrs @ 160 °C)		MPa (k.Lb/in <sup>2</sup> )	≥ 248 (≥ 36)			≥ 207 (≥ 30)		-	
Peel Strength (RT) FR4 <sup>††</sup>		N/mm (Lb/in)	≥ 1.0 (≥ 5.7)		≥ 1.4 (≥ 8.0)		≥ 1.6 (≥ 9.1)	3.5.4 2.4.8	
High Temp. Tarnish Resistance		-	120 min @ 180 °C in air: pass				-		
Solderability		-	Complies with IPC specification				3.6.3	2.4.12	

<sup>††</sup> Laminate construction with thickness ≥ 0.5 mm

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\* All of this Technical Information has been determined with due care and thoroughness. However, because the conditions of use and process and application technologies employed can substantially vary, the provided data and figures can only serve as non-binding guidelines. They do not constitute a guarantee that the purchased item will possess certain attributes. For this reason, no liability whatsoever can be assumed for them. The buyer is obliged to check the suitability of all supplied products.