



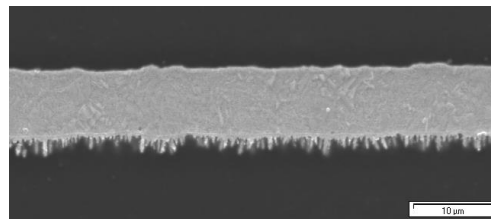
# BF-TZA-PKG

## Technical Characteristics

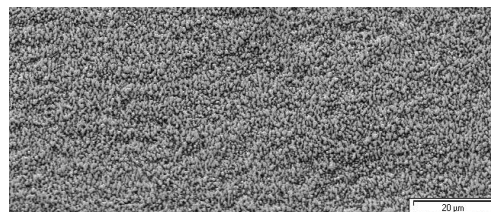
BF-TZA-PKG style foil is an ultra-flat single side treated electro-deposited copper foil, characterized by high ductility at room temperature, a fine grain size with thermally stable microstructure, and lower electrical resistivity compared to regular ED foils.

The zinc free and arsenic free copper treatment is designed to provide excellent bond strength on typical resin systems for IC substrate applications.

The copper foil is suitable for subtractive process and available down to ¼ oz. to avoid inconsistent half-etching. The ultra-smooth profile and uniform thickness allows a precise L/S definition and etching of square conductors.



Cross section  
9 µm BF-TZA-PKG  
Treated matte side



### Typical average properties\*

BF-TZA-PKG							
MEASURED PARAMETERS	UNITS	PRODUCT GAUGE			IPC		
Nominal Thickness	µm oz.	9 1/4	12 3/8	18 1/2	Specification IPC-4562A	Test Method IPC-TM-650	
Area Weight	oz/ft <sup>2</sup>	0.26	0.37	0.50	(a)1.2.5, table 1-1	2.2.12	
	g/m <sup>2</sup>	79	112	152	(b)3.4.4		
	g/254 in <sup>2</sup>	12.9	18.4	24.9	(c)4.6.3		
Untreated Side Roughness (Ra)		≤ 0.35 (≤ 14)			3.5.6	2.2.17	
Treated Side Roughness	Ra	0.3 – 0.55 (12 - 22)			-		
	Rz (ISO)	≤ 3.1 (≤ 122)			3.4.5		
	Rz (JIS)	≤ 2.5 (≤ 98)			-		
	Rt	≤ 3.7 (≤ 146)			-		
Tensile Strength Transverse at RT	MPa (k.Lb/in <sup>2</sup> )	≥ 207 (≥ 30)			3.5.1	2.4.18	
Tensile Strength Transverse at 180 °C		≥ 103 (≥ 15)					
Elongation Transverse at RT	%	4 - 10	5 - 20	7 - 25	3.5.3		
Elongation Transverse at 180 °C		5 - 25	9 - 25	10 - 35			
Peel Strength (RT) <sup>[1]</sup>	BT	N/mm (Lb/in)			≥ 0.6 (≥ 3.4)	3.5.4	2.4.8
High Temp. Tarnish Resistance	-	60 min @ 180 °C in air: pass			-		
Solderability	-	Complies with IPC specification			3.6.3	2.4.12	

[1] 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.