

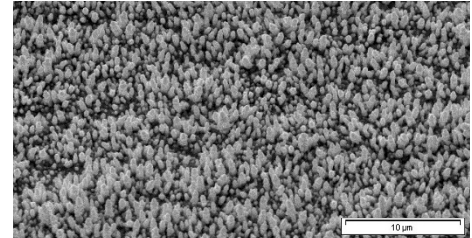
ULTRA FLAT COPPER FOIL FOR FINE LINE PATTERNING.

IPC
Grade 10 & 3



TYPICAL SUBSTRATES

Bismaleimide-Triazine (BT) resin and halogen free high Tg epoxy resin systems.

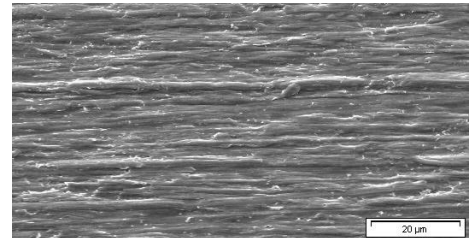


Treated Electrolyte Side

TYPICAL PROCESSES

Subtractive process used in IC substrates and HDI/SLP ("Substrate Like PCB") including for inner layer of ETS ("Embedding Trace Substrate") structure.

Available down to ¼ oz. Reliable alternative to half-etching.



Untreated Drum Side

TYPICAL APPLICATIONS

Mobile communication devices (like smartphones and tablets) and laptops.

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	g/m²	79	112	152	3.4.4	2.2.12
Untreated Side Roughness (Ra)		≤ 0.35			3.5.6	2.2.17
Treated Side Roughness	Rz (JIS)	µm ≤ 2.5			-	
	Rz (ISO)	≤ 3.1			3.4.5	
Tensile Strength Transverse (RT)	MPa (k.Lb/in²)	≥ 276 (≥ 40)			3.5.1	2.4.18
Elongation Transverse (RT)	%	4 - 14	5 - 15	7 - 25	3.5.3	
Peel Strength BT ^{1/1} (RT)	N/mm (Lb/in)	≥ 0.5 (≥ 2.9)	≥ 0.6 (≥ 3.4)		3.5.4	2.4.8

^{1/1} Laminate construction with thickness ≥ 0.5 mm

ALTERNATIVE

For MSAP process please consult DOUBLETHIN N-TZA, DOUBLETHIN ANP, DOUBLETHIN NN and DOUBLETHIN NF datasheets.

* 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.