

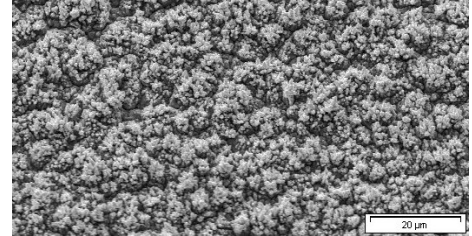
MATTE-SIDE TREATED COPPER FOIL FOR GENERAL USE WITH EXCELLENT ADHESION TO A BROAD RANGE OF SUBSTRATES.

IPC
Grade 3



TYPICAL SUBSTRATES

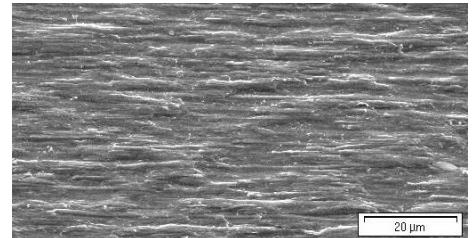
FR-4 glass epoxy including halogen free resin systems.



Treated Electrolyte Side

TYPICAL PROCESSES

Rigid lamination.



Untreated Drum Side

TYPICAL APPLICATIONS

Standard multilayer Printed Circuit Boards.
Thick foils available for power/ground planes or high current applications.

TYPICAL AVERAGE PROPERTIES*

TZA											
MEASURED PARAMETERS	UNITS	PRODUCT GAUGE								IPC	
Nominal Thickness	µm oz.	12 3/8	18 1/2	35 1	70 2	105 3	140 4	175 5	210 6	Specification IPC-4562A	Test Method IPC-TM-650
Area Weight	g/m ²	106	152	283	577	873	1183	1481	1780	3.4.4	2.2.12
Untreated Side Roughness (Ra)	µm	≤ 0.40								3.5.6	2.2.17
Treated Side Roughness (Rz)		JIS	3.3 - 5.8	4.1 - 6.7	5 - 8.4	5.8 - 11	6.7 - 13.5	6.7 - 14.3	7.5 - 15.2	7.5 - 16	
	ISO	4 - 7	5 - 8	6 - 10	7 - 13	8 - 16	8 - 17	9 - 18	9 - 19	3.4.5	
Tensile Strength Transverse (RT)	MPa	≥ 276 (≥ 40)								3.5.1	2.4.18
Tensile Strength Transverse (180 °C)	(k.Lb/in ²)	≥ 138 (≥ 20)									
Elongation Transverse (RT)	%	≥ 3	≥ 6	≥ 9	≥ 12	≥ 14	≥ 16	≥ 18	≥ 19	3.5.3	
Elongation Transverse (180 °C)		≥ 2	≥ 3								
Peel Strength ^[1] (RT)	N/mm	≥ 1.0		≥ 1.2		≥ 1.3				3.5.4	2.4.8
FR4 halogen free	(Lb/in)	(≥ 5.7)		(≥ 6.8)		(≥ 7.4)					

^[1] Laminate construction with thickness ≥ 0.5 mm

ALTERNATIVE

For reverse treated type please consult TZA-B datasheet.

* 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.