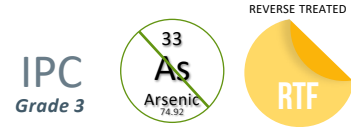
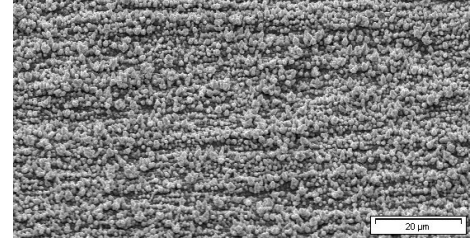


REVERSE TREATED COPPER FOIL FOR GENERAL USE WITH EXCELLENT ADHESION TO A BROAD RANGE OF SUBSTRATES.



TYPICAL SUBSTRATES

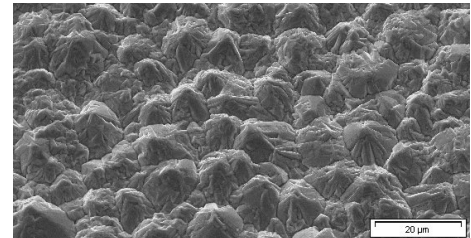
FR-4 glass epoxy including halogen free resin systems. Also used on low loss substrates including Polyphenylene Ether/Oxide (PPE / PPO) based resin systems.



Treated Drum Side

TYPICAL PROCESSES

Rigid lamination. Dedicated to inner layers as the already roughened untreated matte surface eliminates the need of chemical micro-etching prior to oxide processing. Also used for high speed digital Printed Circuit Board.



Untreated Electrolyte Side

TYPICAL APPLICATIONS

For all standard multilayer Printed Circuit Boards. Also used for networking and communication infrastructures including routers, switches and servers.

TYPICAL AVERAGE PROPERTIES*

TZA-B										
MEASURED PARAMETERS			UNITS	PRODUCT GAUGE				IPC		
Nominal Thickness			µm oz.	12 3/8	18 1/2	35 1	70 2	105 3	Specification IPC-4562A	Test Method IPC-TM-650
Area weight			g/m ²	106	152	283	577	873	3.4.4	2.2.12
Untreated Side Contact Roughness	Rz	JIS B 601	µm	≤ 4.2	≤ 5.0	≤ 7.5	≤ 9.2	≤ 10.1	-	2.2.17
	Rz	ISO 4287		≤ 5.1	≤ 6.0	≤ 9.0	≤ 11.0	≤ 12.0	3.4.5	
Treated Side Contact Roughness (Rz)	Rz	JIS B 601	µm	≤ 4.2				-	3.4.5	2.2.22 ^[2]
	Rz	ISO 4287		≤ 5.1				-		
Treated Side Contactless Roughness	Sa	ISO 25178	µm	~ 0.58				-	2.2.22 ^[2]	
	Sz			~ 5.8						
	Sdr			~ 28						
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	3.5.3	
Elongation Transverse (180 °C)				≥ 2	≥ 3					
Peel Strength Treated Shiny Side FR4 halogen free prepreg ^[1] (RT)			N/mm (Lb/in)	≥ 0.7 (≥ 4.0)	≥ 0.75 (≥ 4.3)	≥ 0.8 (≥ 4.6)		3.5.4	2.4.8	

^[1] Laminate construction with thickness ≥ 0.5 mm

^[2] IPC TM 2.2.22 as of May 2020

ALTERNATIVE For reduced signal losses please consult TZA-B3, TZA-B2, BF-TZA, BF-ANP, BF-NN, BFL-NN and BFL-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.