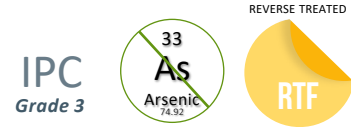
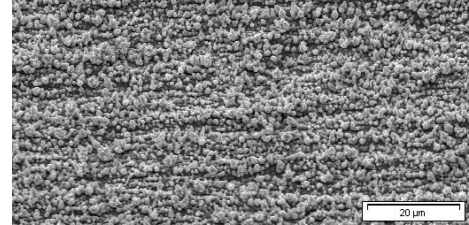


**HIGH BOND REVERSE TREATED COPPER FOIL ON FLUOROPOLYMER SUBSTRATES. ARSENIC FREE ALTERNATIVE TO HFZ-B.**



**TYPICAL SUBSTRATES**

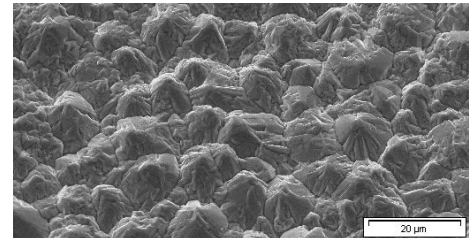
Pure or modified fluoropolymer (PTFE) resin systems.



Treated Drum Side

**TYPICAL PROCESSES**

Radio frequency and microwave Printed Circuit Boards. The pure copper treatment supports reducing the passive intermodulation (PIM).



Untreated Electrolyte Side

**TYPICAL APPLICATIONS**

Base stations infrastructures and automotive radars.

**TYPICAL AVERAGE PROPERTIES\***

HFA-B						
MEASURED PARAMETERS	UNITS	PRODUCT GAUGE			IPC	
Nominal Thickness	µm oz.	18 1/2	35 1	70 2	Specification IPC-4562A	Test Method IPC-TM-650
Area weight	g/m <sup>2</sup>	152	282	576	3.4.4	2.2.12
Untreated Side Roughness (Rz)	JIS	≤ 5.0	≤ 7.5	≤ 9.2	-	2.2.17
	ISO	≤ 6.0	≤ 9.0	≤ 11.0	3.4.5	
Treated Side Roughness (Rz)	JIS	≤ 4.2			-	
	ISO	≤ 5.1			3.4.5	
Tensile Strength Transverse (RT)	MPa (k.Lb/in <sup>2</sup> )	≥ 276 (≥ 40)			3.5.1	2.4.18
Tensile Strength Transverse (180 °C)		≥ 138 (≥ 20)				
Elongation Transverse (RT)	%	≥ 6	≥ 9	≥ 12	3.5.3	
Elongation Transverse (180 °C)		≥ 3				
Peel Strength Treated Shiny Side modified PTFE <sup>[1]</sup> (RT)	N/mm (Lb/in)	≥ 1.05 (≥ 6.0)	≥ 1.75 (≥ 10)		3.5.4	2.4.8

[1] Laminate construction with thickness ≥ 0.5 mm

**ALTERNATIVE** For application at higher frequencies please consult BF-HFA, 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.