

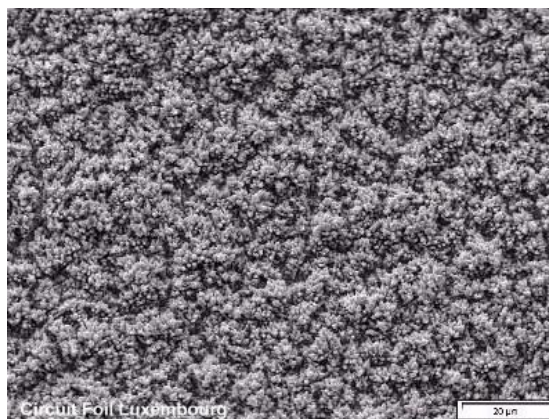
HFZ-LP

Technical Characteristics

HFZ-LP represents a family of advanced matte-sided treated products designed to withstand more severe thermal stress while keeping excellent bonding performance on pure or modified fluoropolymer substrates.

It is suitable for the manufacture of high performance laminates with extended thermal stability and electrical properties for very high frequency circuitry applications. A pure copper treatment limits negative effects on PIM.

Additional alternatives are the reverse treated product HFZ-B, and for ultra-high frequencies (> 10 GHz) our extremely smooth BF-HFZ and BF-ANP treatments (see separate datasheets).



Typical average properties*

HFZ-LP						
MEASURED PARAMETERS	UNITS	PRODUCT GAUGE		IPC		
Nominal Thickness	μm oz.	18 1/2	35 1	Specification IPC-4562A	Test Method IPC-TM-650	
Area Weight	oz/ft ²	0.49	0.94	(a)1.2.5, table 1-1	2.2.12	
	g/m ²	151	288	(b)3.4.4		
	g/254 in ²	24.7	47.2	(c)4.6.3		
Untreated Side Roughness Ra	μm (μ.inch)	0.20 - 0.40 (8 - 16)		3.5.6	2.2.17	
Treated Side Roughness (Rz)		ISO	≤ 6 (≤ 236)			3.4.5
		JIS	≤ 5 (≤ 197)			-
Treated Side Roughness (Rq [RMS])		≤ 1.0 (≤ 39)		-		
Tensile Strength Transverse at RT	MPa (k.Lb/in ²)	≥ 276 (≥ 40)		3.5.1	2.4.18	
Tensile Strength Transverse at 180 °C		≥ 138 (≥ 20)				
Elongation Transverse at RT	%	≥ 6		3.5.3		
Elongation Transverse at 180 °C		≥ 3				
Peel Strength (RT) on pure PTFE ^{††}	N/mm (Lb/in)	≥ 1.6 (≥ 9.1)	≥ 2.0 (≥ 11.4)	3.5.4	2.4.8	
High Temp. Tarnish Resistance on untreated side	-	120 min @ 180 °C in air: pass		-		
Solderability	-	Complies with IPC specification		3.6.3	2.4.12	

^{††} 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.