



**ventec**

INTERNATIONAL GROUP

騰輝電子

PCB CONSUMABLES



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**HIGH TEMPERATURE  
ELONGATION  
COPPER FOIL**

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**MATERIAL DATASHEET**

## INTRODUCTION

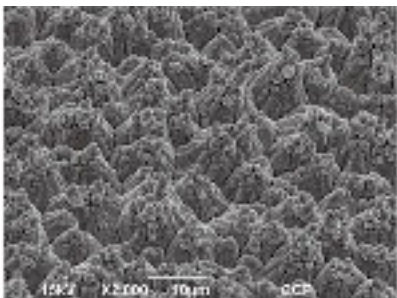
**HTE Copper foil** is a high purity IPC-4562 Grade 3 electrodeposited HTE copper foil, produced by Chang Chun Petrochemical Company (CCP), Taiwan. The outer face of the Foil is semi-matt and is 'anti-tarnish' treated to reduce oxidation and corrosion during storage. The matt side is treated with Zn/Cr

(brown) in order to optimise adhesion to prepreg.

**CCP Foils**, are the Foil of choice for many Far East Laminators, and is widely used in the production of cores and laminates.

## PRODUCT CHARACTERISTICS

- Single side treated Copper Foil according to IPC-4562 class 3.
- Surface plated with Zn/Cr



SEM Image of Matt side (1oz)

## MAIN APPLICATIONS

- Glass Fibre Copper Clad Laminates ( FR-4, CEM-1, CEM-3, High Tg, HF )
- Multi-layer Printed Circuit Board.



SEM Image of Shiny side

# PRODUCT SPECIFICATION

ITEM		UNIT	VALUE				TEST METHOD	
* NOMINAL THICKNESS		µm	9	12	18	35	70	
		oz	1/4	1/3	1/2	1	2	
THICKNESS BY WEIGHT		g/m2 (+/-5%)	76	107	153	285	585	IPC-TM-650
PURITY		%	≥99.8	≥99.8	≥99.8	≥99.8	≥99.8	IPC-TM-650
TENSILE STRENGTH	AT RT	kg/mm	≥21	≥21	≥21	≥28	≥28	IPC-TM-650
	AT 180°C	kg/mm	≥15	≥15	≥15	≥15	≥15	
ELONGATION	AT RT	%	≥3	≥3	≥4	≥5	≥5	IPC-TM-651
	AT 180°C	%	≥2	≥2	≥3	≥3	≥3	
ROUGHNESS OF SHINY SIDE (RA)		µm	<0.43	<0.43	<0.43	<0.43	<0.43	IPC-TM-650
ROUGHNESS OF MATT SIDE (RZ)		µm	<6	<7	<8	<10	<14	IPC-TM-650
** PEEL STRENGTH		kg/cm	≥0.9	≥1.1	≥1.3	≥1.7	≥1.9	IPC-TM-650
		lb/in	≥5.0	≥6.0	≥7.3	≥9.5	≥10.6	

ITEM		UNIT	VALUE				TEST METHOD
* NOMINAL THICKNESS		µm	105	140	175	210	
		oz	3	4	5	6	
THICKNESS BY WEIGHT		g/m2 (+/-5%)	890	1220	1500	21800	IPC-TM-650
PURITY		%	≥99.8	≥99.8	≥99.8	≥99.8	IPC-TM-650
TENSILE STRENGTH	AT RT	kg/mm	≥21	≥21	≥21	≥28	IPC-TM-650
	AT 180°C	kg/mm	≥16	≥16	≥16	≥16	
ELONGATION	AT RT	%	≥5	≥5	≥5	≥5	IPC-TM-651
	AT 180°C	%	≥3	≥3	≥3	≥3	
ROUGHNESS OF SHINY SIDE (RA)		µm	<0.43	<0.43	<0.43	<0.43	IPC-TM-650
ROUGHNESS OF MATT SIDE (RZ)		µm	<12	<13	<14	<15	IPC-TM-650
** PEEL STRENGTH		kg/cm	≥2.0	≥2.0	≥2.0	≥2.0	IPC-TM-650
		lb/in	≥11.2	≥11.2	≥11.2	≥11.2	

\* Other thicknesses available upon request \*\* Peel Strength is determined using Standard FR-4 substrate (6 sheets 7628 Prepreg)

## HOW TO ORDER

HTE Copper Foil is available in the above thicknesses, other thicknesses available on request.

HTE Copper Foil is supplied in cut panels to customer requirements.

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