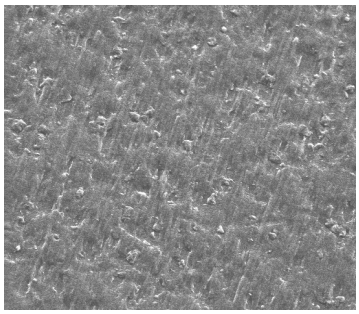
OAK-MITSUI
MITSUI KINZOKU CORPORATE GROUP

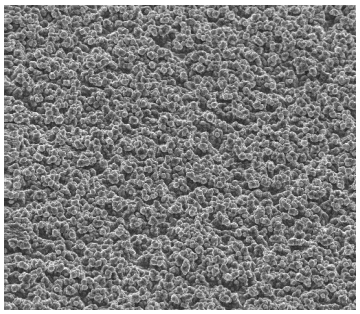
Performance Copper Foils

3EC-HTE

3EC-HTE is an IPC4562 grade 11 electrodeposited low temperature annealable copper foil. This product is used in flexible printed circuit board applications. This superflex product has excellent flex performance that is comparable to RA copper foil.



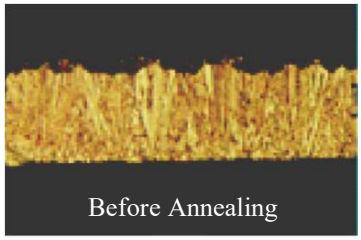
Drum Side - 0.5oz 3EC-HTE (1500x)

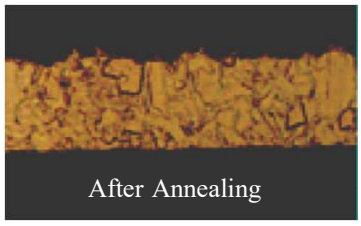


Matte side - 0.5oz 3EC-HTE (1500x)

Typical Properties

Nominal Thickness*	12µ	18µ	35µ
Area weight, oz/ft2	.375	0.5	1
Ambient Tensile Strength, kpsi	62.5	60	55
Ambient Tensile Strength after 1hr @ 180C, kpsi	35	35	35
Tensile Strength @ 180° C, kpsi	22.5	22.5	22.5
Ambient % Elongation	7.5	10	15
Ambient % Elongation after 1hr @ 180C	10	15	20
Elongation % @ 180°C	20	27.5	35
Roughness (drum side) Ra, µinch	10	10	10
Roughness (matte side) Rz, µinch	175	200	250







Before Annealing



After Annealing

Performance Benefits

* Cost effective replacement for RA foils.

* Flex performance comparable to RA copper foil after annealing.

* Copper bonding treatment on matte side of foil provides excellent adhesion to a wide variety of substrates.

* Zinc chromate passivation resists oxidation through a wide range of processing conditions

* No oil or organic coatings.

* Widths up to 53 inch available

***Note**: Calculated thickness is determined by area weight. Actual measured thickness may be slightly higher due to matte side topography.

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