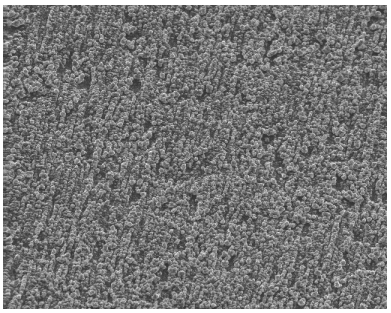
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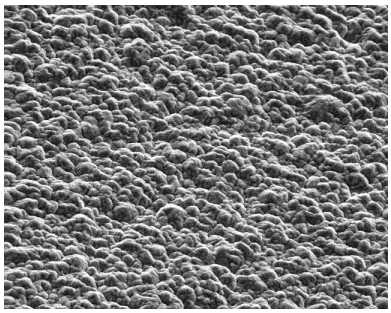
Performance Copper Foils

MLS 3EC-HTE

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



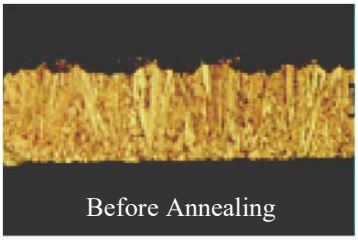
Treated Drum Side - 0.5oz 3EC-HTE (1500x)

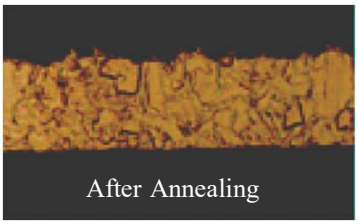


Matte side - 0.5oz 3EC-HTE (1500x)

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 @ 180º C, kpsi	22.5	22.5	22.5
Ambient % Elongation	7.5	10	15
Ambient % Elongation after 1hr @ 180C	10	15	20
Elongation % @ 180ºC	20	27.5	35
Roughness (treated drum side) Rz, µinch	110	110	110
Roughness (matte side) Rz, µinch	125	150	200







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 drum side of foil provides excellent adhesion with a very low profile bonding surface.

* 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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