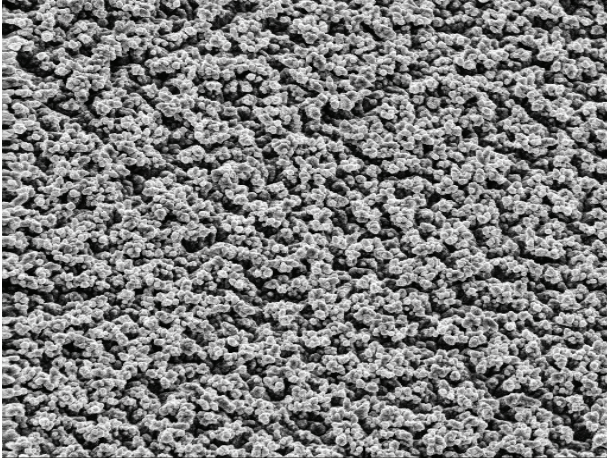
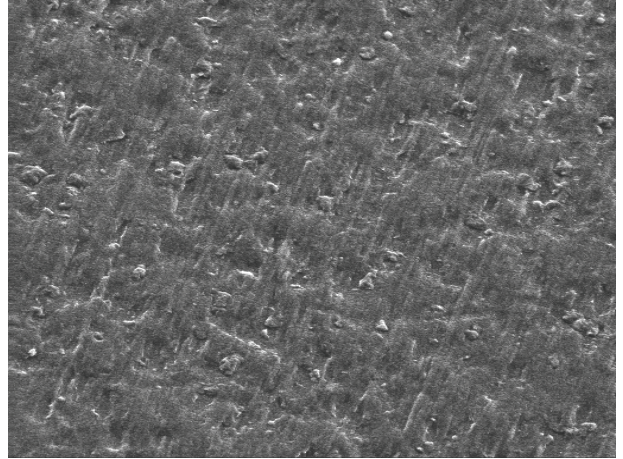


ML is an IPC Grade 3, low profile, controlled elongation copper foil designed specifically for multilayer applications. ML foil is supplied with a TOB treatment (Treatment of Brass), which is fully compatible with all epoxy resin systems.



Treated (Matte) Side ML (1/2 Ounce)



Drum Side ML (1/2 Ounce)

| Nominal Thickness<br>Area Weight                 |            | microns            | 12  | 18  | 35   |
|--|------------|--------------------|-----|-----|------|
|  |            | oz/ft <sup>2</sup> | 3/8 | 1/2 | 1    |
| Tensile  | ambient    | Kpsi               | 60  | 60  | 55   |
|  | 180° C     | Kpsi               | 30  | 30  | 30   |
| Elongation                                       | ambient    | Kpsi               | 8   | 8   | 15   |
|  | 180° C     | %E                 | 8   | 8   | 8    |
| Roughness - Ra                                   | Drum side  | µinch              | 10  | 10  | 10   |
| Roughness - Rz                                   | Matte side | µinch              | 150 | 200 | 250  |
| Peel Strength<br>B Condition<br>Epoxy, Tg 170° C | Matte Side | lbs/in             | 6.5 | 7.5 | 10.5 |

### Performance Benefits

- Low profile for finer lines and consistent etching.
- Decreased foil treatment residues after etching.
- Controlled %E @ 180° for consistent drilling.
- HTE characteristics eliminate inner layer foil cracking.

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

The information contained in this data sheet is not intended to and does not create any warranties, express or implied, including any warranty of merchantability or fitness for a particular purpose. The actual performance of Mitsui materials will vary according to the customer's application.

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