



Solar Technologies

Thin Film Bus Wire

Data Sheet

Ulbrich Solar Technologies, Inc.

692 Plant Road

Westminster, SC 29693

solar@ulbrich.com

www.pvribbon.com

1. Size:

Copper core dimension

Width: 2.0 - 12.7mm +/- 0.08

Thickness: ≥ 0.035 mm +/- 0.008

2. Chemical Composition Base Material:

Material CDA 102 - ASTM B170
CDA 110 - ASTM B5
ETP1 - DIN EN 13602

3. Mechanical Properties:

Measurement method: The pull force is measured on the finished copper wire after annealing.

The pull force is then divided by the total nominal cross section of the copper core only.

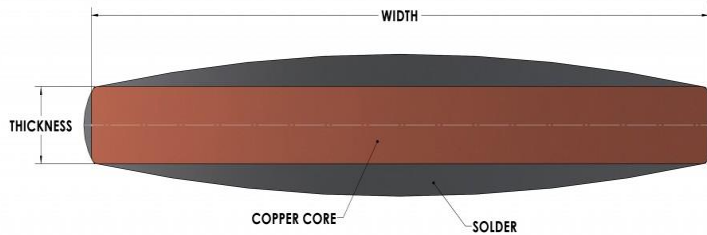
Testing is done in accordance with SEMI PV RIBBON STANDARDS PV018-0811 and PV019-0811

Tensile Strength:

Yield Strength:

Elongation:

According to Customer Specifications



4. Coating:

Solder Coated Copper Wire - All sides coated

Leaded Solder Alloys

Lead Free Solder Alloys

Solder Coating Thickness

Sn62Pb36Ag2

Sn60Pb40

Sn100

Sn96.5Ag3.5

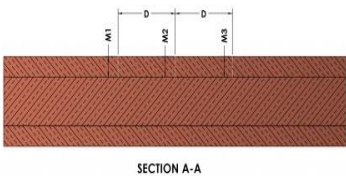
*Other solder alloys are available on request

1-3 μ m PEAK

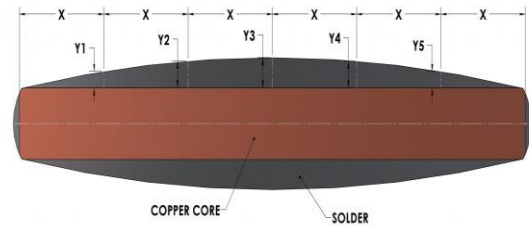
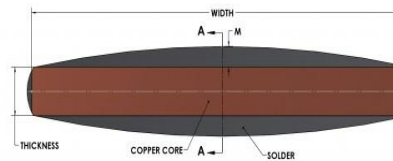
*According to Customer Specifications

Peak

Average



SECTION A-A



5. Straightness:

Measuring Method: Freely suspend ribbon sample weighted with 10g

Camber:

According to Customer Specifications

All information provided above is based on our current standard knowledge and does not claim to be exhaustive. This information may not be passed on to third parties without approval by Ulbrich Solar Technologies, Inc.

**6. Packing:
Pancake Coils on Cores or Cardboard Reels (see Packaging Brochure)**



Please contact Solar@Ulbrich.com for further details and questions.