



Solar Technologies

## Aluminum Tabbing Ribbon

### Data Sheet

Ulbrich Solar Technologies, Inc.

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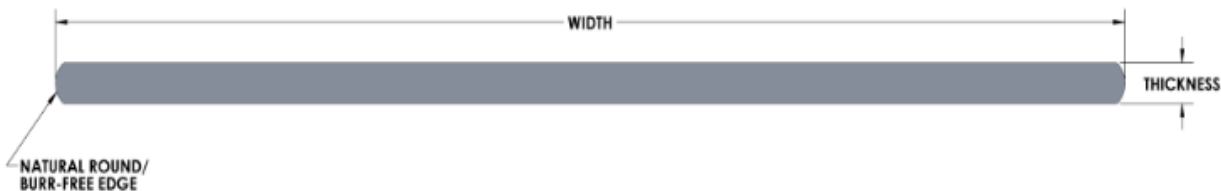
[www.pvribbon.com](http://www.pvribbon.com)

#### 1. Size:

Aluminum core dimension

Width: 1.00 - 12.50 mm +/- 0.08 mm

Thickness: 0.1 - 1.25 mm +/- 0.008 mm



#### 2. Chemical Composition Base Material:

Materials Available

Al1180 (Al99.80% min)

Al1188 (Al99.88% min)

Other alloys including 3XXX, 5XXX and 6XXX series available

#### 3. Mechanical Properties:

Measurement method: The pull force is measured on the finished aluminum product.

Tensile Strength:

55-83 N/mm<sup>2</sup>\*

Yield Strength:

Min 45 N/mm<sup>2</sup>\* depending on alloy

Elongation:

Depending on application

Temper

Full Annealed "O"

Strain Hardened "H"

\*Typical values for annealed products

#### 4. Straightness:

Camber:

<1.0%



#### 5. Finish:

Edge Condition

Burr free and natural round as rolled per round stock (not slit)

Ultra-smooth surface condition

Ra (roughness average) - Max 0.05 µm

Utilizing ultrasonic cleaning technology

Removes residue on the micro-level

#### 6. Reliability:

Superior Performance in "HAST" testing

96 hours/130°C/85% Rh

Post Test Results show:

No Loss in Mechanical Properties

Minimal Scale and Corrosion

HAST= Highly Accelerated Stress Test, a standard reliability test in the electronics industry

#### 6. Packing:

Traverse Wound Spool Packaging Information

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.

Spool:

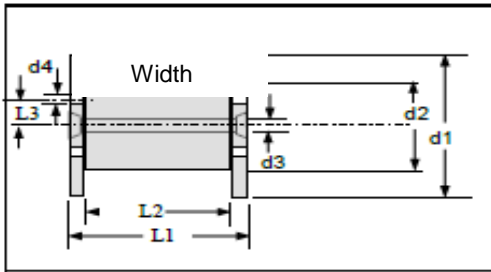
10S

20H

P5R/JP5

\*Other spools are available on request

**Spool Dimensions**



Ulbrich Spool #	d1 mm	d2 mm	d3 mm	d4 mm	L1 mm	L2 mm	L3 mm	Capacity kgs
10S	152	102	16	10	122	102	19	4.5
20H	160	100	22	13	160	128	32	8.0
P5R/JP5	160	90	20	13	114	90	32	4.5