

## Technical Data Sheet



### THEVA Pro-Line TPL1100

2<sup>nd</sup> generation HTS wire  
with surround silver metallization.

## Technical Specifications

### Tape architecture

Substrate	Hastelloy™ C-276, non-magnetic
Buffer layer	MgO
HTS layer	GdBa <sub>2</sub> Cu <sub>3</sub> O <sub>7</sub>
Metallization	~ 1 μm Silver surround
Stabilizer	none


### Mechanical properties

Thickness	0.11 <sup>+0.003</sup> <sub>-0.01</sub> mm
Width	12.0 <sup>+0.2</sup> <sub>-0.2</sub> mm
Minimum double bend diameter (RT)	60 mm
Recommended maximum handling force	100 N (10 kg) <sup>1</sup>
Maximum rated stress (RT)	600 MPa <sup>2</sup>
Maximum rated tensile strain (77 K)	0.3% <sup>2</sup>

### Electrical properties

Minimum critical current I <sub>c</sub> (77 K, self-field) <sup>3</sup>	360 A, 500 A, other current ratings upon request
---	--

### Marks on tape back (substrate) side

Every meter	Meter period and type
Every 20 cm	20 cm period Optional:  (symbol indicating c-axis tilt direction) <sup>4</sup>
Ink	Black ink <sup>5</sup>

### Handling

	handle with care
	handle with gloves
	store in dry ambient (<50% rel. humidity) below 50°C

<sup>1</sup> Recommended maximum pulling strength for handling with rollers (100 mm diameter)

<sup>2</sup> 95% I<sub>c</sub>-retention

<sup>3</sup> Measured by high resolution continuous TapeStar™ XL scanning (Hall sensors) calibrated to 1 μV/cm

<sup>4</sup> Detailed information on angle definition and magnetic field properties upon request

<sup>5</sup> Ink removable with isopropanol or organic solvents