

## Technical Data Sheet



### THEVA Pro-Line TPL2100

2<sup>nd</sup> generation HTS wire  
with thick copper stabilization for superior electrical stability  
and mechanical robustness.

### Technical Specifications

#### Tape architecture

|               |  |
|---------------|--|
| Substrate     | 0.1 mm 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    | 100 μm Copper on HTS side                        |


#### Mechanical properties

|                                     |   |
|-------------------------------------|---|
| Thickness                           | 0.21 <sup>+0.02</sup> <sub>-0.02</sub> mm |
| Width                               | 12.0 <sup>+0.5</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)           | 300 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<br>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