Technical Data Sheet

THEVA Pro-Line TPL2100

High current second generation HTS wire
with thick copper stabilization for superior electrical stability and mechanical robustness

Technical Specifications

Tape architecture	
Substrate	Hastelloy™ C-276, non-magnetic
Buffer layer	MgO
HTS layer	$GdBa_2Cu_3O_7$
Metallization	~ 1 µm Silver surround
Stabilizer	100 µm Copper on HTS side

Mechanical properties	
Thickness	0.20 – 0.23 mm
Width	12.0 - 12.5 mm
Minimum double bend diameter (RT)	60 mm
Recommended maximum handling force	150 N (15 kg)[1]
Maximum rated stress (RT)	340 MPa[2]
Maximum rated tensile strain (77 K)	0.3%[2]

Electrical properties	
Minimum critical current I_C (77 K, self-field)[3]	360 A, other current ratings upon request

Marks on tape back (substrate) side	
Every meter	Meter period and type
Every 20 cm	◿, symbol indicating the c-axis tilt direction[4]
Ink	Black ink[5]

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

[1] Recommended maximum pulling strength for handling with rollers (100mm diam.)
[2] 95% I_C-retention
[3] Measured by high resolution continuous Tapestar™ XL scanning (Hall sensors) calibrated to 1 µV/cm
[4] Detailed information on angle definition and magnetic field properties upon request
[5] Ink removable with isopropanol or organic solvents

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