

Pro-Line Product Overview

Product Type	TPL1000 series	TPL2000 series	TPL4000 series	TPL5000 series
Description	HTS wire with surround silver metallization	HTS wire with single-sided Cu lamination	HTS wire with surround copper stabilization	HTS wire with surround copper stabilization and SnPb solder coating
Typical applications	stacked conductors for levitation and cables or high current density stacks	medium magnetic field coils for rotating machines etc.	coils or stacks with very high current density, small bending radii designs	solder cast coils and stacked conductors
Stabilization	none	50 / 100 µm Cu-foil soldered on HTS side brass-foil available on request	10 µm Cu surround different thicknesses available on request	10 µm Cu surround + thin layer of SnPb40
Thickness	0.06 mm	0.17 mm (100 µm Cu-foil)	0.08 mm	0.08 mm
Maximum rated stress (RT)	500 MPa	250 / 165 MPa	350 MPa	500 MPa
Substrate	50 µm Hastelloy C-276			
Buffer layer	MgO			
Superconducting layer	GdBaCuO - artificial pinning available			
Metallization	Ag			
Width	12 / 6 / 4 / 3 mm			
Min. double bending diameter (RT, 95 %)	40 mm			
Recommended max. handling force (12 mm width, depending on bend)	50 N (5 kg)			
Maximum rated tensile strain (95 %)	0.20 %			
I_C (77 K, sf)*	typical 400 A - 650 A /cm width in-field data available on request			
Piece length	typical 25 - 200 m longer pieces available on request			