HTS solutions for FCC magnets and power infrastructure

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2G HTS wire

Production

R&D: enhanced in-field performance

Customisation

Production development

Originaly

Substrate

HTS

Cu

Finish

1

Cu

Polyimide

Filaments

Buffer GdBCO Ag Cu PbSn

New buffer layer deposition line commissioned in Moscow PLD-HTS system to be commissioned by the end of 2016

HTS Roebel cables for 20 T dipoles

Coat-and-punch

Punch-and-coat

Tape is exposed at the edge and may delaminate
Sharp punch burr can damage adjacent strands

No exposed edge: fully enclosed in copper
Burr is smoothened by copper overcoat

SuperOx-VNIKIP team is willing to make entire link cable: MgB2 + HTS

HTS cables for DC link

HTS dipoles instead of Cu magnets

Modular design: from low to high voltage

Superior performance

Commerciially available

FCL module: bifilar coil

3-Phase FCL assembly

Fault current limitation in 1-2 msec

Protection against burning at fault
Improved heat removal

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