MULTILAYER RIBBONS BASED ON METAL ALLOYS

TECHNOLOGY DEVELOPED AT THE INSTITUTE OF PHYSICS OF THE SLOVAK ACADEMY OF SCIENCES

INNOVATIVE METALLURGICAL TECHNOLOGY

BACKGROUND INFORMATION

- Novel technology of preparation of multilayer ribbons based on metal alloys
- Preparation of multilayer ribbons through rapid quenching from the melt
- Innovative manufacturing method ensuring seamless joining of various layers
- Enhanced quality of joints thanks to the technique of planar flow casting onto a rotating wheel

WIDE RANGE OF APPLICATIONS

TECHNOLOGY APPLICABLE IN SEVERAL COMMERCIAL AREAS

- Invention applicable in the field of actuators and sensors of physical properties
- Multi-layered ribbons suitable predominantly for monitoring of temperature, magnetic field and mechanical deformation
- Commercial applications in electrical engineering, medical, automotive and chemical industries

COMPETITIVE TECHNOLOGY

PERFECT JOINTS AT HIGH MANUFACTURING SPEED

- Multilayered ribbons or sheets with perfect seam between layers and enhanced thickness of 20 to 200 micrometers
- Practically unlimited length of layers
- Allows combination of layers of materials otherwise difficult to join
- New physical, functional and technical properties achieved through the combination of various materials
- Single technological operation with modest energy consumption
- Production speed between 25-50m/s

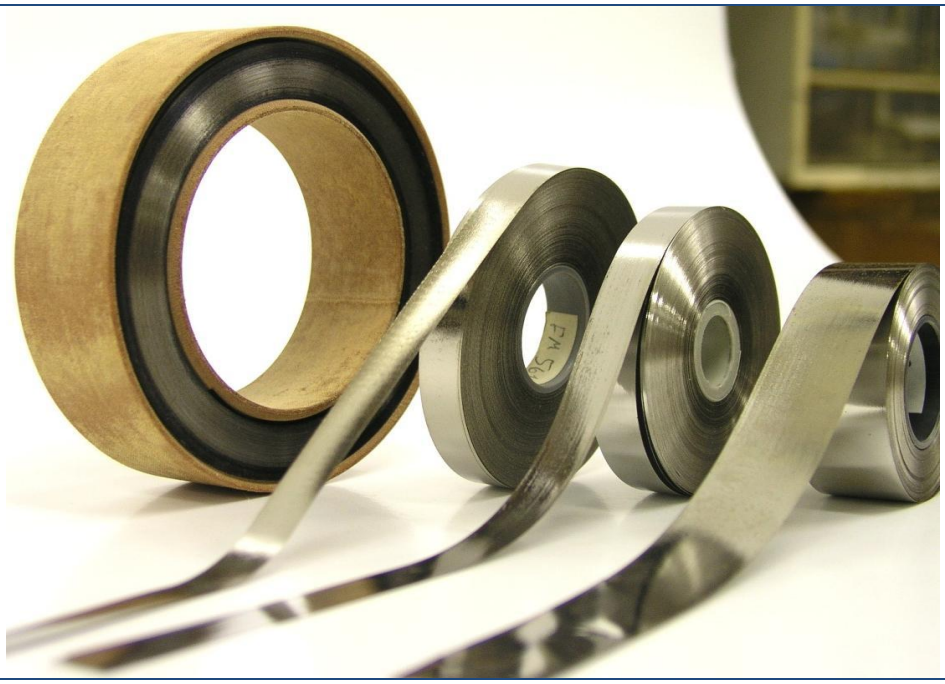
PROTOTYPE OF THE TECHNOLOGY

METHOD OF PREPARATION OF MULTILAYER RIBBONS WITH PERFECT JOINTS BETWEEN LAYERS

STAGE OF DEVELOPMENT

TECHNOLOGY READY FOR LICENSING OR SALE

- Granted Slovak patent (No. 288762)
- Technology has been proven and is ready for further testing
- Multilayered ribbons already applied as strain sensors for harsh environments



INTERNATIONALLY RECOGNISED INVENTORS

TECHNOLOGY DEVELOPED BY A TEAM OF SCIENTISTS AT SAS

- Inventors: Ing. Peter Švec, DrSc., RNDr. Dušan Janičkovič, Michal Halász, Ing. Peter Švec Jr., PhD. and Ing. Jozef Hoško, PhD.
- Research team from the Institute of Physics of the Slovak Academy of Sciences, with focus on material science
- Combined experience of more than 30 years in the field
- Authors of tens of scientific papers in refereed peer-reviewed journals
- Collaboration on research projects in Europe

THE INVENTORS ARE LOOKING FOR AN INDUSTRIAL PARTNER TO SELL OR LICENSE THE TECHNOLOGY