

**HELUKABEL Eltron Sp. z o. o.** is a company operating in the field of modern and advanced copper processing technologies, specializing in the production of cables and wires for industrial applications. The company supplies its products to the network of international factories of the largest electrotechnical concerns, meeting very high technical and quality requirements. The company specializes in the production of:

### **1. Bare copper wires**

We offer bare or tinned copper wires based on wires with a diameter of 0.05 - 0.5 mm. Our cables and connections are characterized by exceptional flexibility and durability, and their quality has been confirmed for years by deliveries to the network of international factories of the largest electrotechnical concerns and the automotive industry.

We offer a complete range of constructions for bare copper wires as well as tinned, silver-plated or nickel-plated wires. In addition to highly flexible ropes and braids, we also have tapes made of wires with a diameter of 0.07 - 0.20 mm. Thanks to the use of wires with a small diameter, we obtain connections with a very high flexibility, and the appropriate construction of the cable allows to obtain a cross-section adequate to the application and current carrying capacity. These products are successfully used as connections in switching stations, between transformers, generators, rectifiers or switching devices in power networks, where the connection is exposed to excessive vibration or thermal expansion of materials.

### **2. TPO, TPCO - braided grounding tapes for EMC applications with rounded contacts.**

Due to their flat shape, the belts can be installed in sealed machine enclosures as they are highly flexible and resistant to stretching, twisting and vibration.

The grounding strap must meet the following requirements:

- High current carrying capacity
- Low resistance and low impedance
- Resilience
- Flexibility

HELUKABEL Eltron offers a wide range of grounding straps featuring rounded contacts made of seamless molded sleeves, in various lengths, with multiple cross-sections and mounting hole diameters - suitable for a wide range of applications:

- car industry
- railway industry
- energy sector, robotics
- control cabinets, switching stations
- control panel elements
- movable connections of electrical devices operating in DC and AC circuits

### **3. Compensating and thermoelectric cables.**

Compensating and thermocouple cables are part of the measurement system that connects the thermocouple sensor with the measurement device, e.g. a controller, temperature indicator or recorder. Thermocouple wires are wires made of the same materials as the thermocouple, but a more economical solution in the lower temperature tolerance class are compensating wires made of substitute materials (other than thermocouples), but within the permissible temperature range according to IEC 584-3, which means that they have the same thermoelectric properties. In industrial measurements, the meter is located some distance from the temperature measurement point, so you need a cable connecting the thermocouple to the meter, which has the same thermoelectric properties as the thermocouple itself. Our production cycle is a fundamental factor in achieving optimal production costs and allows us the flexibility to fulfill individual customer orders in the shortest possible time. Application in industries such as: thermal power plants, metallurgy, oil and gas industry, chemical production and glassworks

### **4. Heat resistant wires.**

These cables are used in electrical systems operating at elevated temperatures, in rotating machines where high flexibility of cables is required and in the lighting industry.

These are cables with very good resistance to thermal shock and UV radiation, they are characterized by great resistance to aging and excellent mechanical properties while maintaining flexibility.

### **5. Grounding wires.**

Ground conductors are conductors intended for portable grounding and short-circuiting equipment that connect or form part of the path between a given installation point and an earth ground. These wires can also connect a given point with an electrical device. Earthing devices are characterized by very good resistance to thermal shock and UV radiation. Grounding conductors are made in accordance with the harmonized standard PN-EN 61138, which guarantees high quality of the product.

The use of grounding conductors is very important in situations requiring:

- earthing of high-voltage installations in power grids
- earthing of installations used in railway traction, especially in the case of repairs
- potential equalization on elements