

## TECHNICAL SPECIFICATION & PRODUCT DESCRIPTION

### Silver plated copper wire **SCW** Ø 0,40 mm Mass: 250 g

We offer a soft copper wire galvanically coated with pure silver with an outer nominal diameter of **Ø 0,40 mm**. Due to its outstanding performance, it is an excellent choice for any professional who relies on perfect quality, reliability and convenience of use. This flexible, exceptional soft, well-laying, resistant to surrounding conditions and user-friendly product is ideal for even the most advanced production projects and any assembly, service or hobby work.

#### Wire technical parameters:

|                                                  |                                           |
|--------------------------------------------------|-------------------------------------------|
| • Nominal diameter of conductive wire            | <b>Ø 0,40 mm</b>                          |
| • Nominal wire cross-sectional area CSA          | <b>0,13 mm<sup>2</sup></b>                |
| • Conductor wire size in SWG system              | <b>SWG 27</b>                             |
| • Manufacturer part number BQ MPN                | <b>SCW-0.40/250</b>                       |
| • Conductive core base material                  | <b>Annealed copper Cu</b>                 |
| • Conductive core coating material               | <b>Silver Ag 999,99 SPC</b>               |
| • Thickness of galvanic silver coating           | <b>0,70 µm ± 3%</b>                       |
| • Minimum conductivity at T=20°C                 | <b>58 m/Ω · mm<sup>2</sup></b>            |
| • Minimum tensile strength of the wire           | <b>200 MPa</b>                            |
| • Minimum wire elongation at break               | <b>20 %</b>                               |
| • Resistance to friction, vibration, oscillation | <b>YES</b>                                |
| • Resistance to current overload                 | <b>YES</b>                                |
| • Resistance to thermal shocks, embers           | <b>YES</b>                                |
| • Resistance to flame propagation                | <b>YES – Product is nonflammable</b>      |
| • Authorized food contact approval               | <b>YES – Product is non-toxic</b>         |
| • Method of electrical assembly and connecting   | <b>Soldering, Crimping, Twisting</b>      |
| • Assembly in wire-wrapped connection system     | <b>YES</b>                                |
| • Soldering - maximum tin coating time           | <b>2 seconds</b>                          |
| • Operating temperature of silver plated wire    | <b>-200°C ÷ +800°C</b>                    |
| • Quantity of product in package - net. weight   | <b>250 grams</b>                          |
| • Approximate length of wire in package          | <b>220 meters</b>                         |
| • Silver plated copper wire packaging system     | <b>Evenly wound on the spool</b>          |
| • Packaging material and dimensions - spools     | <b>Polypropylene Ø = 50mm / H = 42mm</b>  |
| • Packaging logistical security                  | <b>Thermo - shrinkable POF film cover</b> |

## **We guarantee constant availability of items in stock and immediate shipping !**

**SCW** silver coated soft copper wires with the **BQ** logo not only guarantee the highest global product quality and the latest production technologies, taking into account environmental protection, but also ensure comfort of use and savings resulting from reliability.

Silver plated copper wires have an operating temperature in a very wide range from **-200°C** up to **+800°C**. Their uniform construction and precise workmanship ensure a constant diameter, unchanged along the entire length, exceptional softness, overload resistance, thermal and mechanical stability and guarantee excellent soldering with traditional and ecological alloys based on tin, silver and copper. We offer this professional product in **12** most popular diameters from **Ø 0,35mm / SWG 29** to **Ø 2,00mm / SWG 14**.

The wires are made from the highest quality cathodic electrolytic copper of excellent purity, electroplated with a homogeneous, smooth, shiny and fully sealed coating of chemically pure silver with a rated thickness of **0.70µm**. In order to obtain a soft state, they are then subjected to a special annealing process, which changes their structure and increases their tensile strength to at least **200 MPa**. Wires made in this way guarantee almost lossless transmission of sent signal or current, significant facilitation of soldered, welded, screwed and crimped assembly, as well as exceptional softness, ease of bending and flexibility. They are perfectly lay, extremely durable and have a homogeneous, smooth coating, so they have a very low coefficient of friction of the wire surface, have excellent mechanical resistance to abrasion, have excellent resistance to vibration and oscillation, and are resistant to all kinds of thermal, current or mechanical overloads. These wires are dedicated to all applications that place very strict strength requirements, and in particular for the execution of all kinds of coils, windings or high-frequency antennas for wireless data transmission in telecommunications and computer devices, for making precise connections on single and multi-layer motherboards, repairing or current reinforcements of PCB holes metallization, making jumpers, bridges and mounting spirals or connections during prototype or laboratory work. A very wide thermal range allows them to be used in all electronic devices and military equipment, including those operating at extremely variable temperatures, in freezing and heating chambers and where the use of ordinary wires is impossible, as well as for all service and hobby work.

Silver coated wires are available in packs containing **100 grams, 250 grams** or **500 grams** of the product. They are evenly and consistently wound on convenient to use and fully recyclable plastic spools, with outer diameter of **Ø = 50mm** with an internal guide hole **Ø = 20mm** and packed in a sealed cover made of transparent shrink film, which allows you to quickly find the wire you need to use on the shelf in the warehouse, protects against oxidation, getting patina and blackening of the silver coating, dust or getting dirty during storage and always guarantees the end user the highest quality of wires and excellent soldering parameters after removing them from the packaging.

The wires have been made using **ISO 9001** and **ISO 14001** standards, are approved for use in **EU** markets and comply with the requirements of the environmental directives **RoHS-3** (2015/863/EU), **RoHS-2** (2011/65/EU), **RoHS** (2002/95/EU) and also comply with the requirements of **REACH** (Regulation 1907/2006) meeting regularly updated ECHA restrictions.

**SCW** silver plated soft copper wires supplied by **BQ** can be used both, professionally for all connections or windings exposed to very high overloads or operating under extremely harsh conditions, and for simple hobby work. They are an excellent choice for those who value quality, reliability and convenience.



# BQ CABLE

