

**Production scheme** 

**ECAH** 

# **High-Strength and High-Conductivity Copper Wire**

# **Properties of Copper Wire (0.5-mm in diameter)**

| Copper           | Ultimate Tensile<br>Strength,<br>MPa | Percent<br>Elongation,<br>% | Electrical<br>Conductivity ,<br>% IACS |
|------------------|--------------------------------------|-----------------------------|--|
| Cu-OF (99.98%)   | <b>576</b> (370)*                    | <b>2,2</b> (1,9)*           | <b>96,7</b> (96,9)*                    |
| Cu-FRTP (99.95%) | <b>686</b> (450)*                    | <b>2,0</b> (0,8)*           | <b>86,4</b> (86,5)*                    |

<sup>\* -</sup> standard technology (reference data)

#### **Principal effects**

- ✓ increase in the strength properties
- ✓ retention of plastic properties
- ✓ retention of electrical conductivity
- ✓ high temporal stability of the properties

## **Competitive advantages**

- the unique combination of high strength and high conductivity
- possibility of including the *ECAH* to the existing production string

### Field of application

Electronics, electrical engineering, aviation and other industries

P - Pressing; ECAH - Equal Channel Angular Hydroextrusion; D - Drawing

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