# SUMITOMO (SEI) STEEL WIRE CORP.

## Excellent Tensile Strength-Conductivity balance

# TCC(Thick Copper Covered) WIRE

## TCC Wire - Structure

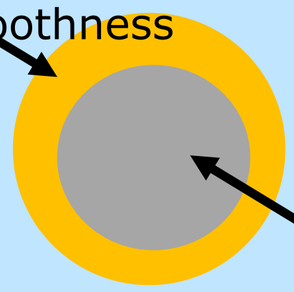
- By covering copper with high strength special copper wire, made both excellent TS and conductivity at the same time

## TCC Wire - Feature

- Various copper wire to be changed (heat resistant copper).
  ⇒ Made excellent sag resistance
- Better in processability and soldering, and it contributes to cost savings which does not require post-plating base.

**High Copper Coating**

⇒Conductivity・ High Smoothness



**High strength Core Material (Special Steel Wire)**
**=>High Strength, Excellent Sag Resistance**

**Figure-1.TCC Wire Cross section**

## TCC Wire – Characteristic Comparison

- Conductivity under 35% IACS that is equivalent to Beryllium copper Alloy or better as for springiness.
- Material design is possible based on wide range of requirements.

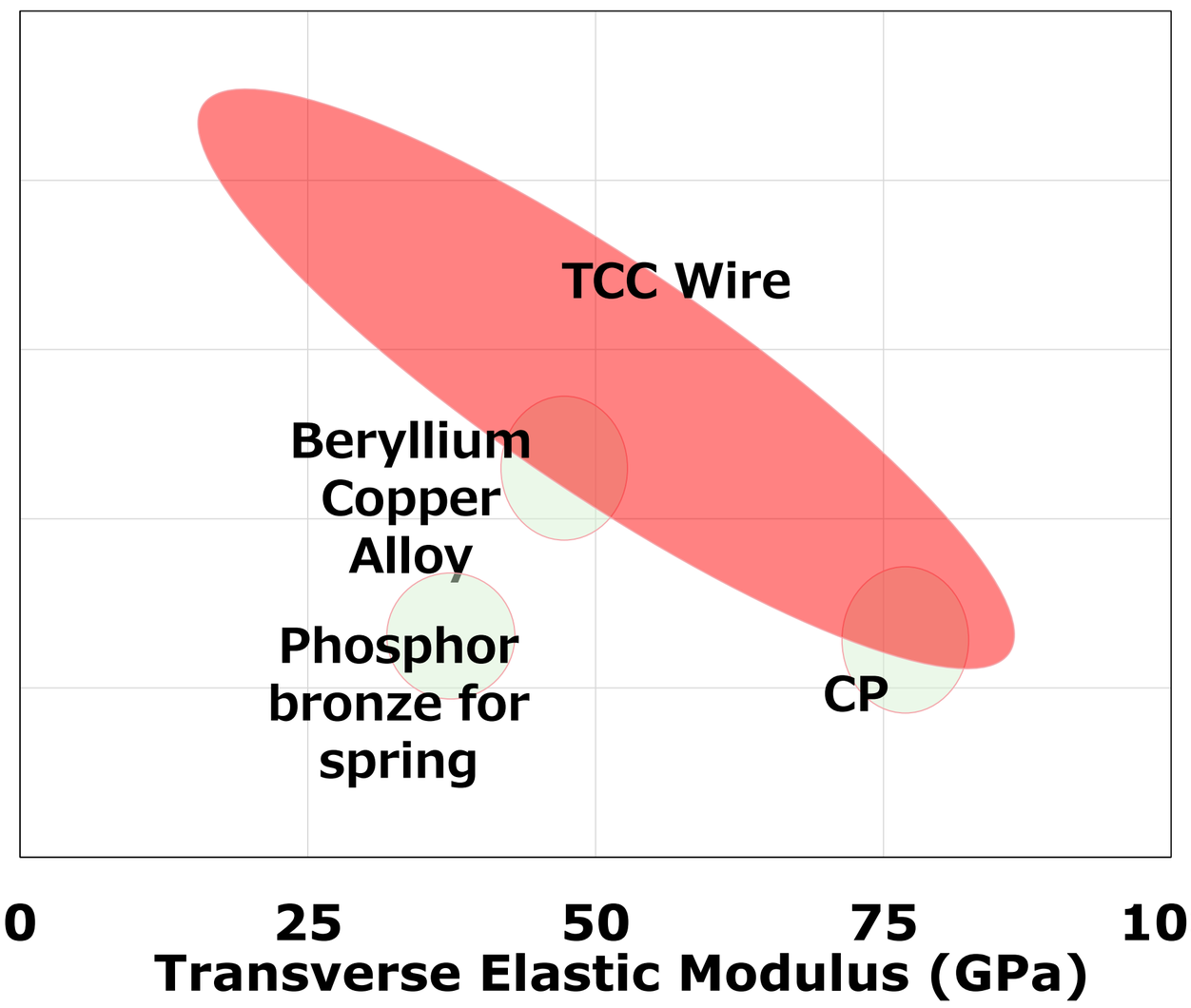



**Figure-2. Comparison between TCC Wire & conventional materials**

## TCC Wire – Application to be used

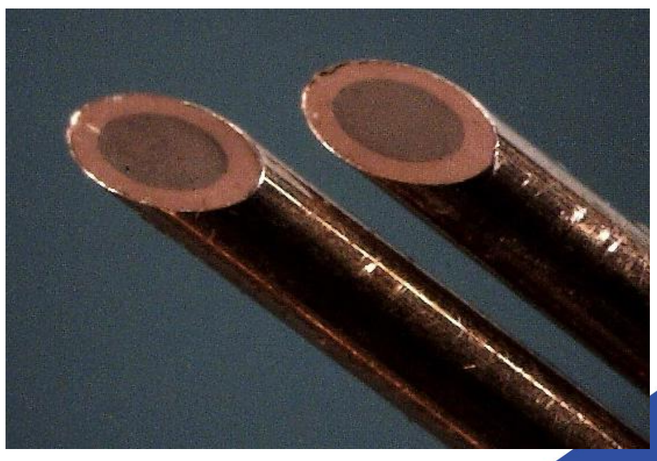
- Electric/Contact of Electric Parts (Spring, Connector, Brush, Pin)

**Both the spring property of the piano wire and the conductivity of the copper alloy are compatible**

## TCC Wore - Specification

**Table-1.TCC Wire Spec**

| Diameter (mm) | Tolerance Diameter (mm) | Conductivity (%IACS) | TS (MPa) |
|---|---|---|---|
| 0.03-0.6 | +0.000 -0.003 | 10-50 | 2800-1350 |



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