

boway 75200

Material Designation

| | |
|-------------------|-------------|
| Boway designation | boway 75200 |
| UNS | C75200 |
| EN | CuNi18Zn18 |
| JIS | C7521 |
| GB(China) | BZn18-18 |

Chemical Composition*

| | | |
|----|------|---|
| Ni | 18 | % |
| Cu | 64 | % |
| Zn | Rem. | |

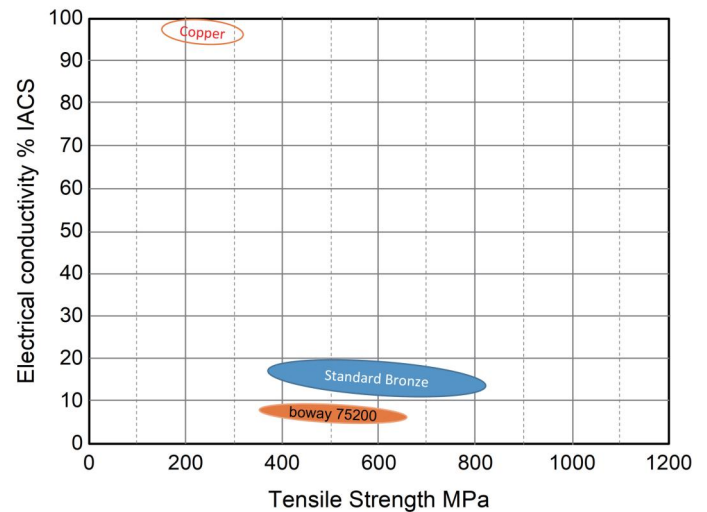
Application Target

| | |
|------------------------|---------------|
| Signal Connector | Suitable |
| Power Connector | Not recommend |
| Miniaturized Connector | Suitable |
| Switch / Relay | Suitable |
| Shielding | Very suitable |

Ideal for EMI shielding, gasket etc.

Fabrication Properties

| | |
|--------------------|--------------|
| Cold forming | Very good |
| Machining | Not suitable |
| Electroplating | Very good |
| Hot dip tinning | Very good |
| Laser welding | Good |
| Resistance welding | Very good |
| Soft soldering | Very good |



Characteristics

Excellent ductility combined with very good corrosion resistance in fresh water and sea water. Very good behavior against electromagnetic interference as well as excellent stress relaxation resistance and solderability. Low sensitivity to stress corrosion cracking.

Physical Properties*

| | | |
|------------------------------------|------|---------------------|
| Density | 8.7 | g/cm ³ |
| Electrical conductivity @ 20°C | 7 | % IACS |
| | 4 | MS/m |
| Thermal conductivity @ 20°C | 32 | W/(m·K) |
| Specific heat capacity | 0.34 | J/(g·K) |
| Modulus of elasticity | 135 | GPa |
| Poisson's ratio | 0.33 | |
| Coefficient of thermal expansion** | 16.8 | 10 ⁻⁶ /K |

* Typical values at room temperature for reference.

** average value between 20-300°C

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Mechanical Properties

| Temper | Tensile strength | | Yield strength | Hardness* | Elongation |
|-----------|------------------|---------|----------------|-----------|------------|
| | MPa | ksi | | | |
| R375(O) | ≥ 375 | ≥ 55 | ≥ 180 | 90 - 120 | ≥ 20 |
| R440(H/2) | 440 - 570 | 64 - 83 | ≥ 250 | 120 - 180 | — |
| R540(H) | 540 - 640 | 79 - 93 | ≥ 420 | 150 - 210 | — |
| R610(EH) | ≥ 610 | ≥ 89 | ≥ 520 | ≥ 185 | — |

*For reference only

Bendability bending thickness: 0.08-0.2 mm, bending width: 10 mm

| Temper | 90° R/T | | 180° R/T | |
|-----------|----------|---------|----------|---------|
| | Good Way | Bad Way | Good Way | Bad Way |
| R375(O) | 0 | 0 | 0 | 0 |
| R440(H/2) | 0 | 1 | 0 | 2 |
| R540(H) | 1 | 3 | 2 | 4 |
| R610(EH) | — | — | — | — |

90° bend test According to EN ISO 7438, 180° bend test acc. to ASTM B820, shown values might show orange-peel, however no crack.

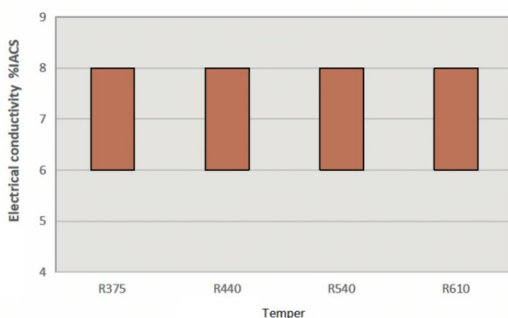
Packaging

Standard coils with outside diameter up to 1300 mm,
 Traverse-wound coils with drum weight up to 500 kg.
 Multiple-coil up to 3 tons.

Dimensions available

Strip thickness 0.08 - 3.0 mm, other gauges on request.
 Strip width from 8.5 mm.

Electrical Conductivity



Fatigue Strength

The fatigue strength is defined as the maximum bending stress amplitude which a material withstands for 10.000.000 load cycles under symmetrical alternate load without breaking. It depends on the temper selected and can be estimated typically by 1/3 of tensile strength. For solid solution fine grain materials fatigue strength might increase up to 0,5 * of tensile strength.