

## boway 70260

### Material Designation

Boway Designation	boway 70260
UNS	C70260
EN	CuNi2Si
JIS	-
GB(China)	BSi2-0.45

### Chemical Composition\*

Ni	2	%
Si	0.5	%
Cu	Rem.	

\* Nominal composition

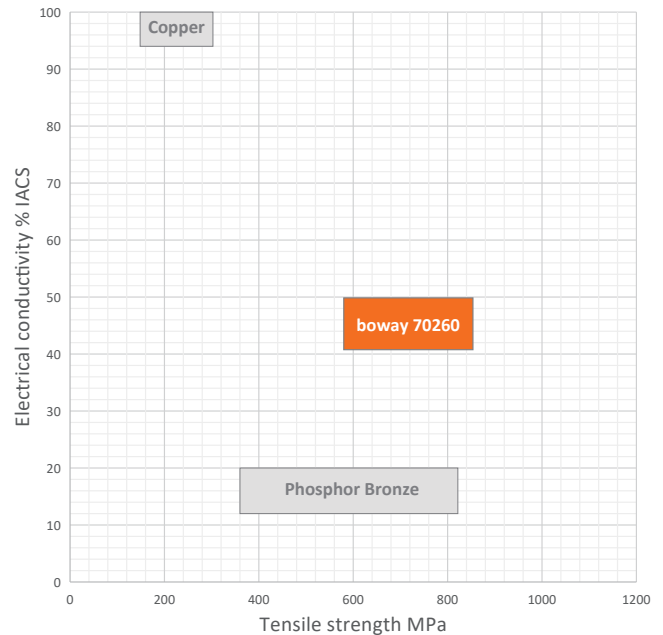
### Application Target

Signal connector	Suitable
Power connector	Suitable
Miniaturized connector	Suitable
Switch/Relay	Suitable
Semiconductor	Not recommended

Ideal for automotive connectors

### Fabrication Properties

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



### Characteristics

High strength, good electrical conductivity combined with excellent bending performance.  
Good corrosion resistance and softening resistance as well as stress relaxation performance.

### Physical Properties\*

Density	8.85	g/cm <sup>3</sup>
Electrical conductivity@20° C	49	% IACS
	28	MS/m
Thermal conductivity@20° C	190	W/(m·K)
Specific heat capacity	0.399	J/(g·K)
Modulus of elasticity	132	GPa
Poisson's ratio	0.33	
Coefficient of thermal expansion**	17	10 <sup>-6</sup> /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	Elongation	Hardness
	MPa	ksi	MPa	A50 %	HV
R585(TM00)	585–655	85–95	≥ 450	≥ 10	160–210
R620(TM0S)	620–725	90–105	≥ 520	≥ 6	180–215
R655(TM02)	655–745	98–108	≥ 620	≥ 5	190–225
R725(TM03)	725–830	105–120	≥ 655	≥ 2	200–240

\*For reference only

### Bendability Bending thickness ≤ 0.5 mm; Bending width: 10 mm

Temper	90° R/T		180° R/T	
	Good Way	Bad Way	Good Way	Bad Way
R585(TM00)	0	0	0.5	1
R620(TM0S)	0.5	0.5	1	1.5
R655(TM02)	0.5	1	1	2.5
R725(TM03)	1	1.5	1.5	3.5

90° bend test according to EN ISO7438, 180° bend test according to ASTM B820, shown values might show orange-peel, however no crack.

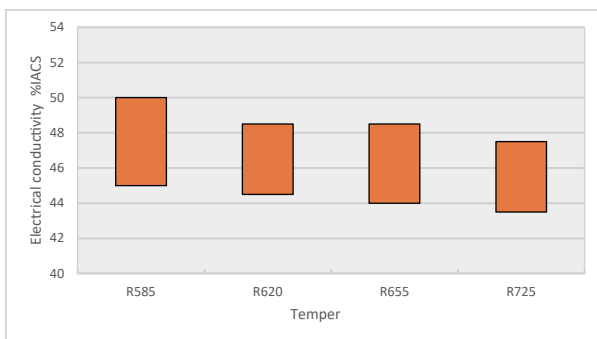
### Packaging

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.  
 Hot-dip tinned and electroplated strip available.

### 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.

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