

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

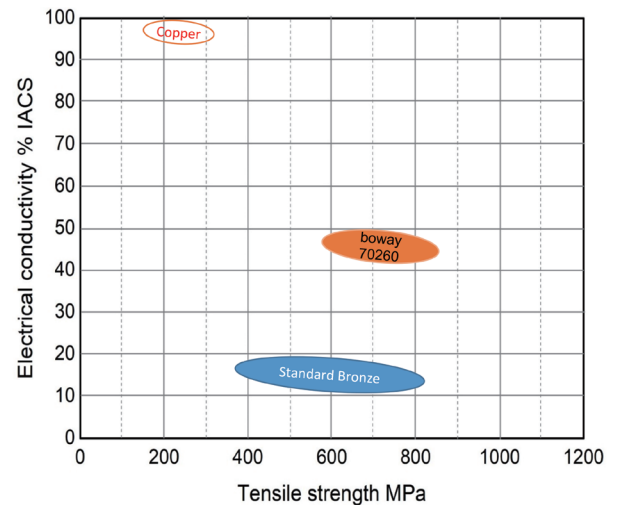
Application Target

Signal Connector	Suitable
Power Connector	Suitable
Miniaturized Connector	Suitable
Switch / Relay	Suitable
Semiconductor	Not recommend

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 ³
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 ⁻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	MPa	HV	A50 %
R585(TM00)	585 – 655	85 – 95	≥ 450	160 – 210	≥ 10
R620(TM05)	620 – 725	90 – 105	≥ 520	180 – 215	≥ 6
R655(TM02)	675 – 745	98 – 108	≥ 620	190 – 225	≥ 5
R725(TM03)	725 – 830	105 – 120	≥ 655	200 – 240	≥ 2
R760(TM04)	760 – 860	110 – 125	≥ 690	220 – 260	≥ 1

*For reference only

Bendability

Thickness range: ≤ 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(TM05)	0.5	0.5	1	1.5
R655(TM02)	0.5	1	1	2.5
R725(TM03)	1	1.5	1.5	3.5
R760(TM04)	1.5	3	2	6

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

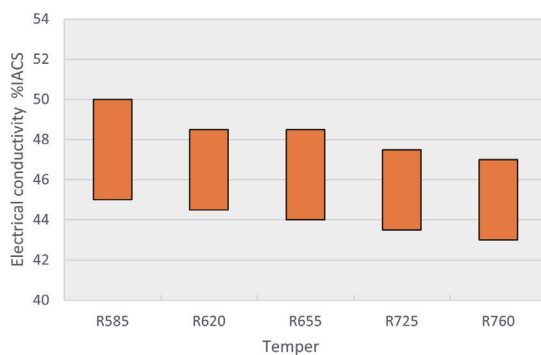
Packaging

Standard coils with outside diameter up to 1200 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. For solid solution fine grain materials fatigue strength might increase up to 0,5 * of tensile strength.

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