

# bedra 15000

## Material Designation \*

UNS	C15000
EN	CuZr (CW 120 C)
JIS	/
GB	TZr0.15

## Chemical Composition

Cu	Balance	%
Zr	0.1-0.2	%
Others	≤0.1	%



## Characteristics

It has high electrical conductivity, thermal conductivity and good process performances.

## Typical Application

It is applied for spot welding electrode and electrode cap, especially suitable for coating sheet. It is also suitable for components of electronic devices.

## Physical Properties

Density <sup>①</sup>	8.9	g/cm <sup>3</sup>
Electrical conductivity <sup>①</sup>	86	%IACS
Thermal conductivity <sup>①</sup>	367	W/(m·K)
Coefficient of thermal expansion <sup>②</sup>	17.0	10 <sup>-6</sup> / K
Modulus of elasticity	129	GPa

Note①: Temperature for testing is 20°C.

Note②: Temperature range for testing is 20-300°C.

## Fabrication Properties

Cold workability	Excellent
Hot workability	Excellent
Brazing	Good
Resistance welding	Not recommended
Machinability compared with C36000	20%

## Mechanical Properties

Diameter	Temper	Tensile Strength	Yield Strength	Elongation
mm		MPa min.	MPa min.	% min.
4 < Φ ≤ 25	R350	350	260	12
25 < Φ ≤ 50	R280	280	210	15

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## Tolerance and Delivery Form

### Straight Bar

Diameter	Tolerance <sup>③</sup>	Ovality	Length	Straightness
mm	mm	mm max.	mm max.	mm/m max.
5 ≤ Φ ≤ 6	0.06	0.03	4000	1.0
6 < Φ ≤ 10	0.10	0.05	4000	1.0
10 < Φ ≤ 20	0.16	0.08	4000	1.0
20 < Φ ≤ 25	0.18	0.09	4000	1.0
25 < Φ ≤ 30	0.20	0.10	4000	1.0
30 < Φ ≤ 40	0.24	0.12	4000	1.0
40 < Φ ≤ 42.5	0.30	0.15	4000	1.0

Note<sup>③</sup>: The tolerances listed in the table are specified as all plus or all minus. When tolerances are specified as plus and minus (±), half the values given.

Composition	BSEN 12163-2016
Conductivity	BSEN 12163-2016
Mechanical Properties	BSEN 12163-2016
Fabrication Properties	CDA
Other Physical Properties	CDA

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