

## Brass

# bedra 27200

### Material Designation \*

UNS	C27200
EN	CuZn37 (CW 508 L)
JIS	C2720
GB	H63

### Chemical Composition

Cu	62-65	%
Zn	Balance	%



### Characteristics

This single-phase brass has good mechanical properties and also high strength and plasticity performance. It can withstand cold and hot pressure processing and has fair corrosion resistance.

### Typical Applications

It is applied for all kinds of light stamping parts, sugar machinery and ship parts, hardware screws, plugs, etc.

### Physical Properties

Density <sup>①</sup>	8.44	g/cm <sup>3</sup>
Electrical conductivity <sup>①</sup>	27.6	%IACS
Thermal conductivity <sup>①</sup>	116	W/(m·K)
Coefficient of thermal expansion <sup>②</sup>	19.7	10 <sup>-6</sup> /K
Modulus of elasticity	110	GPa

Note①: Temperature for testing is 20°C.

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

### Fabrication Properties

Cold workability	Fair
Hot workability	Excellent
Brazing	Excellent
Machinability Compared with C36000	35%

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## Mechanical Properties

Diameter	Temper	Tensile Strength	Yield Strength	Elongation	Hardness
mm		MPa min.	MPa min.	% min.	HV min.
3 < $\Phi$ ≤ 12	H02	375	250	10	110
12 < $\Phi$ ≤ 18	H02	350	230	14	100
3 < $\Phi$ ≤ 12	H04	590	450	--	170
12 < $\Phi$ ≤ 18	H04	490	360	--	140

## Tolerance and Delivery Form

### Straight Bar

Diameter	Tolerance <sup>③</sup>	Ovality	Length	Straightness	
mm	mm	mm	mm max.	ft max.	mm/m max.
2 ≤ $\Phi$ < 3	0.03	0.0075	2500	8.2	1.0
3 ≤ $\Phi$ < 6	0.04	0.01	2500	8.2	0.5
6 ≤ $\Phi$ < 10	0.06	0.015	4000	13.1	0.5
10 ≤ $\Phi$ < 18	0.08	0.02	4000	13.1	0.5
18 ≤ $\Phi$ < 25	0.12	0.03	4000	13.1	0.5
25 ≤ $\Phi$ < 40	0.20	0.05	4000	13.1	0.5
40 ≤ $\Phi$ < 60	0.30	0.075	4000	13.1	0.5
60 ≤ $\Phi$ < 80	0.60	0.15	3000	9.8	3.0
80 ≤ $\Phi$ < 100	1.60	0.40	2000	6.6	5.0
100 ≤ $\Phi$ ≤ 120	2.00	0.50	1500	4.9	6.0

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 ( $\pm$ ), half the values given.

\*Composition UNS  
 Conductivity UNS  
 Mechanical Properties For reference only, measured at room temperature, 68°F(20°C).  
 Fabrication Properties UNS, Machinability for reference only.  
 Other Physical Properties For reference only

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