

Brass

bedra 27000

Material Designation*

UNS	C27000
EN	CuZn36 (CW 507 L)
JIS	C2700
GB	H65

Chemical Composition

Cu	63.0-68.5	%
Zn	Balance	%



Characteristics

It has good mechanical properties, good plasticity in hot and cold conditions, good cuttability and strong corrosion resistance. It is easy to be brazed and welded.

Typical Applications

It is suitable for a variety of deep drawing and bending of stressed parts, such as hardwares (screws, nuts, connectors), springs, guidelines, screen, paper pipe and mechanical parts.

Physical Properties

Density ^①	8.4	kg/dm ³
Electrical conductivity ^①	26	%IACS
Thermal conductivity ^①	121	W/(m·K)
Coefficient of thermal expansion ^②	22.2	10 ⁻⁶ /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	Excellent
Hot workability	Poor
Brazing	Excellent
Machinability compared with C36000	30%

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Mechanical Properties

Diameter	Temper	Tensile Strength	Yield Strength	Elongation	Hardness
mm		MPa min.	MPa min.	% min.	HV min.
3 < Φ ≤ 12	H02	380	260	10	110
12 < Φ ≤ 18	H02	360	240	15	100
3 < Φ ≤ 12	H04	540	420	--	150
12 < Φ ≤ 18	H04	440	320	--	120

Tolerance and Delivery Form

Straight Bar

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

Note^③: 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 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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