

SM337 (C27200 / C27400)

CuZn37

Alloy characteristics

SM337 is an important brass alloy for cold work processes with 37 % Zinc. It has good forming, solderability and great stampability properties. The high content of zinc contributes to higher tensile strength, and also helps making it one of the most cost effective brass alloys. Typical applications for this alloy are: Connectors, input-output plugs, switches, lightframes, decorative panels, bulb sockets, musical instruments etc.

SM337 is in compliance to the requirements of the OEKO-TEX Standard 100 in terms of the PB and Cd.

Mechanical properties	Temper condition						
	030 R290	H01 R360	H02 R410	H03 R460	H04 R490	H06 R550	
Tensile strength in N/mm ²	290-370	360-440	410-490	460-530	490-560	550-640	
0,2% yield strength in N/mm ²	<190	>200	>300	>380	>450	>500	
Vickers hardness HV (ref.value)	55-95	95-125	120-150	140-170	155-185	170-200	
Elongation A _{L50%}	> 40	> 30	> 15	> 10	> 5	> 1	
Bendability							
0.10 ≤ s ≤ 0.25mm	Transverse	0 x s	0 x s	0 x s	0 x s	0 x s	0.5 x s
	Parallel	0 x s	0 x s	0 x s	0 x s	0 x s	1 x s
0.25 < s ≤ 0.5mm	Transverse	0 x s	0 x s	0 x s	0 x s	0 x s	1 x s
	Parallel	0 x s	0 x s	0 x s	0.5 x s	1 x s	2 x s

Physical properties (Typical values in annealed temper at 20 °C)

Thermal expansion coefficient 20 ... 300 °C	20.2	10 ⁻⁶ /K
Specific heat capacity	0.377	J/(g·K)
Density	8.4	g/cm ³
Thermal conductivity	120	W/(m·K)
Thermal coefficient of electrical resistance (0 ... 100 °C)	1.7	10 ⁻³ /K
Modulus of elasticity (1 GPa = 1 kN/mm ²) cold formed	110	GPa
Electrical conductivity (IACS)	28	%

Material designation

DIN EN	CW 508 L
UNS	C27200 / C27400

Chemical composition

Cu	Rest %
Sn	< 0.05 %
Zn	37 %
Other	≤ 0.375 %

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