

- High Tensile Brass -

H74

Material designation	Chemical composition*			
C67400 - SAE J463	Elements	% mean	Impurities	% max.
	Cu	58.5	Fe	0.30
	Pb	0.3	Ni	0.20
	Mn	3.1	Sn	0.25
	Si	0.7	Other	0.45
	Al	1.35		
	Zn	balance		

* Reference values in % by weight

Properties and typical applications

High tensile brass for machining and hot working. Aeronautics, automotive equipment, wear plates...

Physical properties at 20°C		Heat treatment	
Density (g/cm ³)	8,1	Melting range (°C)	890-910
Young modulus (GPa)	110	Hot working (°C)	650-750
Thermal expansion coefficient (20-300°C) (10 ⁻⁶ /K)	20	Annealing temperature (°C)*	500-600
Thermal conductivity (W/m.K)	100	Stress relieving treatment (°C)**	300-400
Thermal capacity (J/Kg.K)	377	* <i>Annealing treatment of a material leads to reduce its hardness and increase its ductility.</i>	
Electrical conductivity (% I.A.C.S.)	23		
		** <i>Stress relieving treatment allows to eliminate the residual stresses present in the material in order to avoid the stress corrosion cracking.</i>	

Forming		Joining	
Hot forming	Excellent	Soldering	
Cold forming	Not recommended	Soft	Good
Machinability	40% (Réf : CuZn39Pb3 = 100%)	Hard	Good
Corrosion resistance		Welding	
Special brass alloys show in general a good corrosion resistance in neutral, alkaline and organic fluids due to alloying elements.		Gaz welding	Not recommended
		Inert gas shielded arc welding	Not recommended
		Resistance welding	Not recommended

Mechanical properties (indicatives values)

Limite élastique Rp _{0,5} [Mpa]	> 240
Résistance à la traction Rm [Mpa]	> 480
Allongement à la rupture [%]	> 15
Dureté [HB]	> 120

Fabrication range

Available forms:



Do not hesitate to contact us for further information regarding the dimensions, tolerances and metallurgical conditions.
Our technical teams are by your side to help you succeed in your projects.

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