Pb < 0,1%
0% Cadmium
RoHS & ELV ok

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CW723R - High tensile lead free brass - L15

Material designation	
CuZn40Mn2Fe1	
EN 12163 (version 1998)	CW723R
EN 12165 (version 1998)	CW723R
EN 12167 (version 1998)	CW723R

Chemical composition*

Elements	% mean	Impurities	% max.
Cu	57.5	**Pb**	**0.1**
Mn	1.5	Ni	0.4
Fe	1	Other	0.4
Zn	balance		

* Reference values in % by weight

Properties and typical applications

Special lead free brass with a good machinability due to its biphasic structure α+β.
It can be used if Pb ≤ 0,1% is requested with a high level of mechanical properties.
For industrial and architectural applications.

Physical properties at 20°C	
Density (g/cm3)	8.3
Young modulus (GPa)	85
Thermal expansion coefficient (20-300°C) (10^{-6}/K)	19
Thermal conductivity (W/m.K)	80
Thermal capacity (J/Kg.K)	380
Electrical conductivity (% I.A.C.S.)	15

Heat treatment	
Melting range (°C)	880-910
Hot working (°C)	650-750
Annealing temperature (°C)*	450-550
Stress relieving treatment (°C)**	300-400

Annealing treatment of a material leads to reduce its hardness and increase its ductility.

****Stress relieving treatment allows to eliminate the residual stresses present in the material in ordrer to avoid the stress corrosion cracking.***

Forming	
Hot forming	Good
Cold forming	Fair
Machinability	60% (CuZn39Pb3 = 100%)

Corrosion resistance

High tensile brasses generally exhibit good corrosion resistance to organic materials and neutral or alkaline compounds due to alloying elements.

Joining	
Soldering	
Soft	Good
Hard	Good
Welding	
Gaz welding	Fair
Inert gas shielded arc welding	Fair
Resistance welding	Fair

Mechanical properties according to EN12163

Condition of material	Diameter [mm] from	Diameter [mm] to	Rp0,2 [Mpa] min.	Rm [Mpa] min.	A(%) min.	Hardness HB
M	All		As extruded - without specific mechanical properties			
R460	6	40	(270)	460	20	-
H110			-	-	-	110-140
R540	6	40	(320)	540	8	-
H150			-	-	-	≥150

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.
info@m-lego.com

Non contractual document - Information given as an indication