

Data sheet CuZn42/CW510L Alumeco A/S				Internal alloy name: CW510L International alloy name: CuZn42 DIN-Werkstoff no.: - Alloy type: - Revision date: 14-01-2021															
Main usage <ul style="list-style-type: none"> Fittings, sanitary industry Pipe connector Plumbers fittings Water applications 		Main properties <ul style="list-style-type: none"> Good Hot formability Fair Machinability Very low lead content Good corrosion resistance 		Important norms and literature EN12164: Copper and copper alloys. Rod for free machining purposes EN12167: Copper and copper alloys. Profiles and bars for general purposes		EN12165: Copper and copper alloys. Wrought and unwrought forging stock													
Chemical composition (%) DIN EN 12164																			
Cu	Al	Fe	Ni	Pb	Sn	Zn	Other elements												
57,0-59,0	Max. 0,05	Max. 0,3	Max. 0,3	Max. 0,2	Max. 0,3	Rem.	Max. 0,2												
Typical mechanical properties DIN EN 12164																			
Material condition	As Manufactured																		
M																			
<small>** Information values only</small>																			
Physical properties																			
Density (20 °C) g cm ⁻³	Solidification range °C	Electrical conductivity %IACS	Thermal conductivity (20 °C) W m ⁻¹ K ⁻¹	Thermal expansion (20-300 °C) µm m ⁻¹ K ⁻¹	Annealing temperature °C	E - modulus (20 °C) N mm ⁻²													
8.4	870-890	27	139	21,2	420-630	106,000													
Properties and information																			
Fabrication Properties <table border="1" style="width: 100%;"> <tr> <td style="width: 50%;">Hot Formability</td> <td style="width: 50%;">Good</td> </tr> <tr> <td>Cold Formability</td> <td>Poor</td> </tr> </table>				Hot Formability	Good	Cold Formability	Poor	Joining Methods <table border="1" style="width: 100%;"> <tr> <td style="width: 50%;">Soldering</td> <td style="width: 50%;">Excellent</td> </tr> <tr> <td>Brazing</td> <td>Good</td> </tr> <tr> <td>Oxy-acetylene welding</td> <td>Fair</td> </tr> <tr> <td>Gas-shielded arc welding</td> <td>Fair</td> </tr> </table>				Soldering	Excellent	Brazing	Good	Oxy-acetylene welding	Fair	Gas-shielded arc welding	Fair
Hot Formability	Good																		
Cold Formability	Poor																		
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