Datasheet:

EN CuNi2Si / CW111C
Bars for general purposes

Alumeco ApS
16-09-2025

Internal alloy name:	**CW111C**
Metal:	**Copper**
Chemical Symbol:	**CuNi2Si**
EN:	**EN CuNi2Si**
UNS:	**C70260**
DIN:	**2.0855**
Also known as:	**-**
Alloy type:	**Low alloyed copper**

Main usage:

- Springs
- Terminals – Switch gear and circuit breakters
- Fasteners

Main properties:

- High wear and abrasion resistance
- Great corrosion resistance
- Excellent hot workability
- Great electrical and heat conductivity

Important norms and literature:

General Standards
EN 12167:2016: Copper and copper alloys – Profiles and bars for general purposes

Geometric Tolerance:
EN 12167:2016: Copper and copper alloys – Profiles and bars for general purposes

Chemical composition in %: EN EN 12167:2016

Cu	Fe	Mn	Ni	Pb	Si	Other elements
Remaining	Max. 0,2	Max. 0,1	1,6 – 2,5	Max. 0,02	0,4 – 0,8	Max. 0,3

Mechanical properties: EN EN 12167:2016

Material Condition	Bar thickness mm	Tensile strength R_m Min. MPa	0,2% proof Strength R_m Min. MPa	Elongation Min. % $A_{100\ mm}$	Elongation Min. % $A_{11,3}$	Elongation Min. % A	Hardness HBW
M	All	As manufactured					
R550	10 – 40	550	430	-	-	15	-
H150	10 – 40	-	-	-	-	-	150 – 190
R600	3 – 30	600	520	4	6	10	-
H165	3 – 30	-	-	-	-	-	165 – 210

*** Information values only;**

Physical properties:

Density (20 °C) g/cm³	Solidification range °C	Electrical conductivity %IACS	Thermal conductivity (20 °C) W/m K	Thermal expansion (20 - 300 °C) µm m^{-1} K^{-1}	Annealing temperature ºC	E – modulus (20 °C) N / mm²
8,8	1040 – 1060	43	161	17	-	130.000

Properties and information's (3 Excellent; 2 Good; 1 Poor/not recommendable)[1]

Machinability (Zerspanbarkeitsindex): 30*
*(CuZn39Pb3 = 100)

Forming Methods:

Hot Formability:	3
Cold Formability:	2

Corrosion resistance:

Atmosphere:	2
Waters and alkaline:	2
Acids, Ammonia, Seawater:	1

Joining Methods:

Soldering:	2
Brazing:	2
Gas-shielded arc welding: MIG/TIG	2

Surface Treatment:

Polishing:	
Mechanical:	2
Electrolytic/chemical:	1-2
Galvanizing:	2