CuSn0,15

CuSn0,15 (CW0117C, C14415) – tin bearing copper produced in Pori is used in electro-industry, electronic and automotive industry.

Properties:

- Excellent formability
- Excellent soldering
- Excellent brazing
- Excellent Electroplating properties
- Good electrical and thermal conductivity
- Good gas shield arc welding
- Fair oxyacetylene welding
- Good corrosion resistance, no stress cracking corrosion

Composition:

- Cu min 99,6 %
- Sn 1000…1500 ppm

Electrical conductivity:

- min 81 % IACS

Thermal conductivity:

- 340 W/m°K

Typical applications:

- Automotive industry
- Components of electrical engineering
- Connectors and plug-in connector pins
- Lead frames
- Heat exchangers
- Radiator fins
- Conductors and cables

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Physical Properties, Tempers and Mechanical Properties:

Alloy Name	**CuSn0.15**
European Standard Number	**CW0117C**
UNS Code	**C14415**
Manufacturing Location	**Pori**
Density	8.9 g/cm^3 , 0.323 lb/in^3
Electrical Conductivity	min 84 % IACS
Thermal Conductivity	340 W/(m °K), 196.4 Btu/(ft hr °F)
Modulus of Elasticity	130 GPa, 18.9 X1000 ksi
Coef. of Thermal Exp. at 20 ºC (68 ºF)	17.3 10-6/°C, 9.6 10-6/°F
EN H060 / R250	
Tensile Strength Rm N/mm^2	250 - 320
Yield Strength (0.2 %) N/mm^2	-
Elongation % A50 / A (0.1- < 2.0 mm)	min 9
Hardness HV	60 - 90
EN H085 / R300	
Tensile Strength Rm N/mm^2	300 - 370
Yield Strength (0.2 %) N/mm^2	min 250
Elongation % A50 / A (0.1- < 2.0 mm	min 4
Hardness HV	85 - 110
EN H105 / R360	
Tensile Strength Rm N/mm^2	360 - 430
Yield Strength (0.2 %) N/mm^2	min 320
Elongation % A50 / A (0.1- < 2.0 mm)	min 3
Hardness HV	105 - 130
EN H120 / R420	
Tensile Strength Rm N/mm^2	420 - 490
Yield Strength (0.2 %) N/mm^2	-
Elongation % A50 / A (0.1- < 2.0 mm)	min 2
Hardness HV	120 - 140

Other tempers - as ASTM - are available upon request.
Data for information only not for purchase specification.
Yield strength, Elongation and Hardness are typical values for each temper.