Cu Sn 0,15 / Cu-DI

COPPER

CHEMICAL COMPOSITION :

Cu min	99.80%
Sn	0.1-0.5

ALLOY DENOMINATIONS :

MATERIAL N° EN :	CW117 C
WN/MATERIAL N° DIN :	Not normalised
ROBERT LAMINAGE :	161
EN :	CU SN0.15
DIN :	Not normalised
AFNOR :	Not normalised
UNS* :	C 14415

**Unified Numbering System (USA)*

PHYSICAL PROPERTIES :

Density 20º C	8.93	Kg/dm^3
Melting point	1083	ºC
Modulus of elasticity, longitudinal	130	GPa
Thermal Conductivity	364	W/M . K
Electrical Conductivity	≥ 49	$M/\Omega\ mm^2$
Electrical resistivity	≤ 0.024	$\Omega\ mm^2/M$
Coefficient of linear expansion from 20 up to 300ºC	18×10^{-6}	K^{-1}
IACS (International Annealed Copper Standard)	≥ 85	%

WORKABILITY :

Coldworking	Very good
Hotworking	Good (750-950ºC)
Machining	Medium
Soldering, brazing	Very good
Tin soldering	Good
Polishing	Good
Annealing temperature	350-500ºC
Stress relieving heat treatment temperature	150-200ºC

MAIN APPLICATIONS :

Discs for diamond saws

AVAILABLE SIZES :

Widths	from 2 up to 350mm
Thickness	from 0.01up to 2.5mm

CONDITIONING :

a) In coils
b) Cut to length, from 0.5 up to 3 m

TOLERANCES :

Depending on product

QUALITY OF EDGES :

Slit edges

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MECHANICAL PROPERTIES : **Cu Sn 0,15 / Cu-DI**

EN NORM

TEMPER	THICKNESS		Rm (MPa) min	Rm (MPa) max	ELONGATION A50 % min	Vickers HARDNESS min	Vickers HARDNESS max	GRAIN SIZE
R250	0.10	2.0	250	320	9	-	-	-
H060			-	-	-	60	90	-
R300	0.10	2.0	300	370	4	-	-	-
H085			-	-	-	85	110	-
R360	0.10	2.0	360	430	3	-	-	-
H105			-	-	-	105	130	-
R420	0.10	1.0	420	490	2	-	-	-
H120			-	-	-	120	140	-

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