

Cu 53.5 Ni 45

ARCAP AP4

CHEMICAL COMPOSITION :

Cu	54%
Ni	45%
Additional metals	2%
Zinc	balance

ALLOY DENOMINATIONS :

MATERIAL N° EN :	-
WN/MATERIAL N° DIN :	-
ROBERT LAMINAGE :	466
EN :	-
DIN :	-
AFNOR :	-
UNS* :	C 76390

*Unified Numbering System (USA)

PHYSICAL PROPERTIES :

Density 20° C	8.91	Kg/dm ³
Melting point	1225	°C
Modulus of elasticity, longitudinal	145	GPa
Thermal Conductivity	22	W/M . K
Electrical Conductivity	≥ 25	M/Ω mm ²
Electrical resistivity	≤ 0.49	Ω mm ² /M
Coefficient of linear expansion from 20 up to 300°C	17 x 10 ⁻⁶	K ⁻¹
IACS (International Annealed Copper Standard)	≥ 3.5	%

WORKABILITY :

Coldworking	Very good
Hot Working	Good
Machining	Good
Soldering, brazing	Very good
Tin soldering	Very good
Polishing	Very good
Annealing temperature	~750 °C
Stress relieving heat treatment temperature	~300 °C

MAIN APPLICATIONS :

Anti-magnetic, high corrosion-resistant
Electronical, connectors, telecommunications, appliances
Clock and watchmaking, non precious jewelry,
aeronautics, aerospace, defense
Measuring equipment, navigation, optics

CONDITIONING :

- In coils
- Cut to length, from 0.5 up to 3 m

AVAILABLE SIZES :

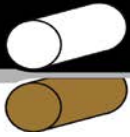
Widths	from 2 up to 350mm
Thickness	from 0.01 up to 3.4mm

TOLERANCES :

Depending on product

QUALITY OF EDGES :

Slit edges



MECHANICAL PROPERTIES :

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CLAL NORM (Manufacturer)

TEMPER	Vickers HARDNESS		Rm (MPa)		Rp 0.2 (Mpa)	ELONGATION 0.10 up to 2.5 mm A50 % min
	min	max	min	max		
Annealed 0	≤ 140		≤ 500		≤ 300	≥ 30
1/2 Hard H11	140	180	470	600	>300	≥ 15
1/2 hard H12	175	205	550	650	> 450	≥ 8
Spring H15	≥ 225		≥ 720		≥ 670	-