

YAMATO GOKIN CO., LTD.

ALLOY DATA SHEET

CuNi14Al2

1. Characteristics

- High mechanical properties
- Excellent wear resistance
- Oxidation resistance
- No sparks on impact

2. Related Specifications

- NF L 14-702

3. Applications

- Aerospace and marine parts

4. Chemical Composition

Designation: CuNi14Al2

(%)

Element	Ni	Al	Mn	Others (total)	Cu
Min	13.0	1.8	-	-	Remainder
Max	15.0	3.5	0.5	0.50	

5. Physical Properties

Density	g/cm ³	8.9
Young's modulus	N/mm ²	120,000
Coefficient of expansion 20 to 300° C	10 ⁻⁶ /° C	17
Thermal conductivity	W/m K	30
Electrical conductivity	IACS %	9

6. Available forms/Mechanical Properties

Size/condition	forms/process						Mechanical properties						Available forms													
	Bars		Tubes				Tensile strength	Yield strength 0.2% offset	Elongation	Hardness			Semi-finished products											parts		
	Extruded or forged	Drawn	Continuous casting	Extruded	Drawn	Continuous casting				Forgings	Mpa	Mpa	%	HB	HRB	HV	Rounds	Squares	Flats	Hexagones	Section	Tubes	Plates	Discs	Rings	Forged blanks
section ≤ 2000 mm ² (≤ ϕ 50mm)	●	●					≥780	≥590	≥10	≥215				●								●	●	●		●
section > 2000 mm ² (> ϕ 50mm)	●						≥740	≥540	≥10	≥205																

All information is intended as a guide to performance and application suitability.