

# YAMATO GOKIN CO., LTD.

## ALLOY DATA SHEET

### NC25

#### 1. Characteristics

- Beryllium-free
- Excellent mechanical properties
- High electrical conductivity

#### 2. Related Specifications

- RWMA Class 4
- JIS Z 3234

#### 3. Applications

- Injection mold fabrication material
- Electrode for resistance welding

#### 4. Chemical Composition

Designation: NC25

(%)

Element	Ni	Cr	Si	Cu
Min	-	-	-	-
Max	-	-	-	-

#### 5. Physical Properties

Density	g/cm <sup>3</sup>	8.6
Young's modulus	N/mm <sup>2</sup>	130,000
Coefficient of expansion 20 to 300° C	× 10 <sup>-6</sup> /° C	17
Thermal conductivity	W/m K	130
Electrical conductivity	IACS %	25

#### 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	HRC	HV	Rounds	Squares	Flats	Hexagones	Section	Tubes	Plates	Discs	Rings	Forged blanks	stamped
Bars 16 ≤ φ ≤ 65mm	●	●					≥900	-	≥5					●								●	●				
Bars 40 ≤ φ ≤ 140mm	●						≥820							≥25	●									●	●		●
Plates 15 ≤ Thickness ≤ 130mm						●																	●				
						●														●	●	●	●			●	

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

info2@yamatogokin.com

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