

# ALLOY WIRES



**Rahul Ferrometal**  
Leading the Evolutions



**MONEL** ●  
**INCONEL** ●  
**INCOLOY** ●  
**HASTELLOY** ●

Wire  
Wire Rod  
Filler Metal  
Welding Electrode



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## Mission

At Rahul Ferrometal, its mission is leading of this world.

As a raw material producer, we believe that each time new materials are successfully developed, the world will undergo evolution. To date, common carbon steels and stainless steels are difficult to deal with tasks and requirements faced by many high-tech industries and in extreme production environments. With global industrial upgrading, nickel alloys are emerging to replace previous materials for enhanced efficiency and more lasting performance of completing tasks. We are professional manufacturer of nickel alloys and what we keep doing is to supply high quality nickel alloy products to the world. We have our responsibility and role to play in the popularity of the superior nickel alloys, and usher a new chapter into our world industry.

## Vision

Our vision is to see the world development unconstrained by the materials.

This is an age of rapid development. As technology advances at the lightning speed, it poses increasingly high requirements on materials. While now material becomes a bottleneck on technology breakthrough, putting sand in the wheels of development, a hinderance that cannot be ignored. As raw material manufacturers, we should develop and progress on materials continuously so that we can introduce more advanced materials to the market. We firmly believe that material breakthrough will set off a chain effect on world technology.

## Values

Our value is to provide excellent products, information and service.

Product is the core of everything. We hope that all of our customers will feel at absolute ease using our products, while the product quality is the best bridge that builds our mutual trust. Hence, we've developed a very strict quality control system. Each product is subject to rounds of inspections by our professional inspectors. We believe that, only when we have 100% confidence in our products can our customers experience ease and satisfaction using them.

As nickel alloys are not as popular in applications as other steels, people's knowledge on these advanced alloys are also relatively limited. We are nickel alloy specialist; we devote ourselves to disseminating the knowledge of these materials. We will deliver new articles on nickel alloys on Media regularly. Hope with our efforts more people will know these excellent materials.

If you have any demand on nickel alloys, please feel free to send us enquiries. Our team will solve your demand with a very professional attitude. Our goal is to start every cooperation with excellent service.

# US

As a professional manufacturer of nickel alloys in China, Rahul Ferrometal, LIMITED provides a quite wide range of nickel alloy products to our worldwide customers. The forms of our supply come into five categories: Pipes, Fittings, Bars, Sheets and Wires. Monel, Inconel, Incoloy, Hastelloy are our four major grades. We also have other special alloys like Nimonic, Nitronic, pure-nickel and etc. to cater for your custom demands. With 30 years' accumulated experience in alloy industry, we have developed mature and diverse quality control solutions to free you from purchasing worries. At Rahul Ferrometal, you buy trustworthy nickel alloys.

# AB

# ABOUT US

# WHY

# CHOOSE

# US



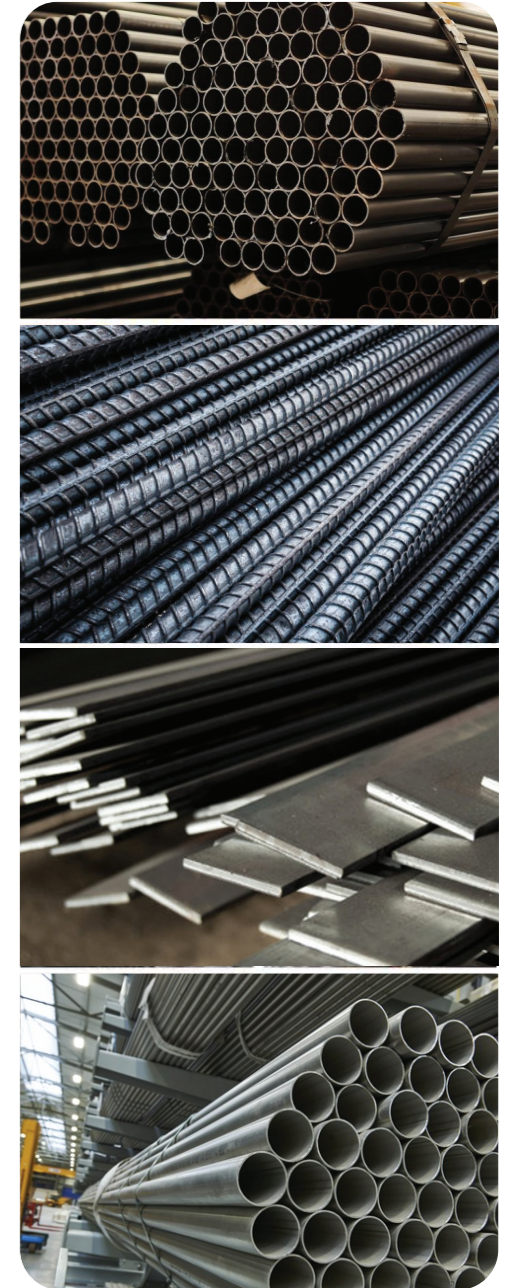
## Quality Raw Material

Choosing raw material is the first step to quality control. This applies to all of our products. Our nickel alloy tube billets, ingots, and coils are all subjected to strict selection before putting into production.



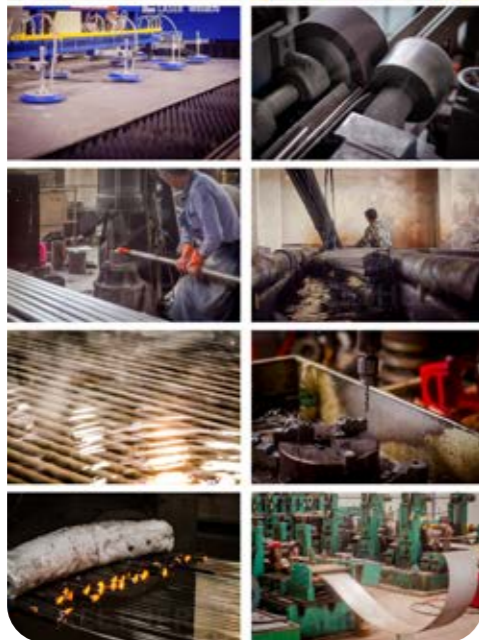
## Huge Inventory

We have inventory for regular conventional products to solve regular and urgent demands. This enhances our supply chain efficiency. Meanwhile, it allows us to proceed with our production as plan and ensures production process.



## Complete Process ↓

We will not skip over any production process, even if it does not affect product look. We believe this is the basic requirement on product quality. If necessary, we will keep honing our products so that they can demonstrate workmanship.



## Artful Appearance ↻

Our products boast artful appearance. This cannot be done without our nearly fastidious attitudes on raw material selection, emphasis on finish treatment and skillful adapting of our equipment's functionality by our experienced engineers.



## Strict Quality Control ↑

Our products are subjected to strict quality inspection with original mill certificates issued by our officers or third party inspection with MTC issued by independent institutes. The final result is that we will never deliver unqualified products.



## Strong Packing 📦

Even the best-built products, if without suitable packing, may encounter problems during transportation. Hence, we are attentive to packing details. Packing is our shield to product transportation safety.



# OUR STORY

## Metal Experience

Rahul Ferrometal has its predecessor specialize in stainless steel products. At 1989, our first company Civmats was founded. Since then we have put into much efforts on stabilizing our product quality at an industrial higher level while experimenting on lowering the cost without any compromise on quality. With great efforts come our customers' recognition on our company and our products. Built on this base, Rahul Ferrometal keeps growing strong, aiming to bring values to our customers, staffs and stockholders.

## Nickel Alloy

2009 is the 20th anniversary of our foundation. At this juncture, we decide to evolve from ourselves and create new brand Rahul Ferrometal. We've realized that nickel alloys will be the future of this industry. We need to embrace this ever changing market with a completely new look. Hence, we've built a professional team constituted by industrial specialists and experienced talents, studying the past, the present and the future of nickel alloys. We've also dug deep into production processes to enhance efficiency and lower the cost. In 2014, with five years' accumulation, Rahul Ferrometal has become a mature nickel alloy manufacturer. As an industrial specialist, we've provided satisfactory products and services to many customers.

## Going Global

Our products finally go global after serving domestic markets for around 30 years.

In 2016, Rahul Ferrometal founded international business department. We've built international sales and technical teams, dedicated to making our quality materials accessible to more countries at a reasonably low price.

For now, our products have been manufactured and distributed to worldwide. We've built mutual trusts with customers from Asia, Europe, America, Africa, and Oceania. We regard your repeat orders as recognition on our product. Meanwhile, we will live up to your trust and expectations, marching further to the international market. We grow with you.

1

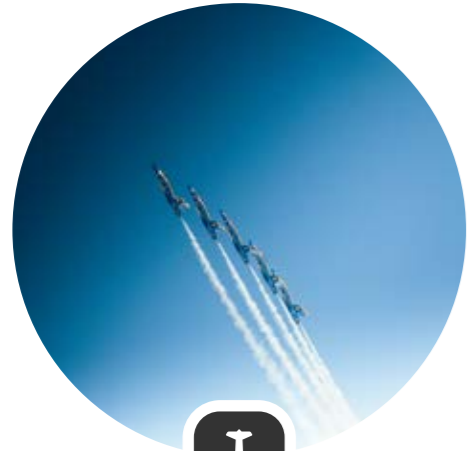
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3

# SOLUTIONS

## -- Nickel Alloy Applications

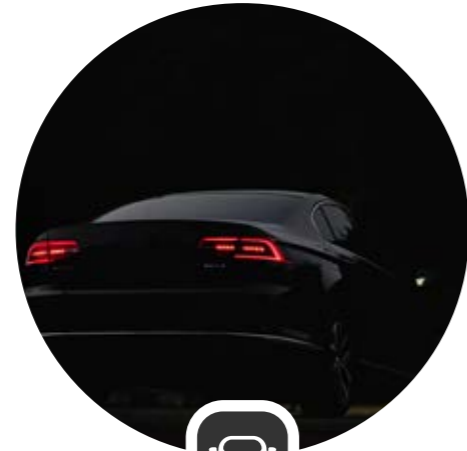




## Aerospace

- INCONEL
- INCOLOY
- HASTELLOY

Aerospace is the industry where nickel alloys are most widely used. In aerospace engines, it is not an easy task to ensure that various components can work normally at different temperatures and in different environments. Nickel alloy is currently the most suitable material with excellent corrosion resistance and excellent mechanical properties at high temperatures. Rahul Ferrometal provides solution strengthened superalloys for engine containers and high-strength precipitation strengthened superalloys for engine blades.



## Automotive

- MONEL
- INCONEL
- INCOLOY
- HASTELLOY

Similar to aerospace applications. With the development of the automobile industry, more and more automobile production uses nickel alloys to improve the performance of automobiles. Nowadays, superalloys are widely used in auto parts such as turbochargers, exhaust valves, ignition prechamber, exhaust gas cleaner fastener, nozzles & etc. Rahul Ferrometal produces performance nickel alloys to meet these needs.



## Chemical Processing

- MONEL
- INCONEL
- INCOLOY
- HASTELLOY

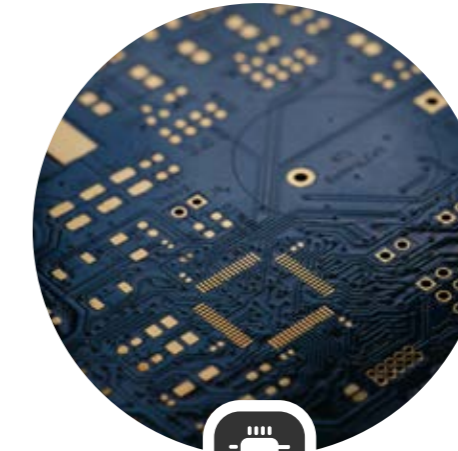
In the chemical industry, various chemical reactions need to be carried out in containers. Of course, different chemical reactions require different temperatures. The nickel alloy can not only resist the corrosion of various chemical substances, but also have good mechanical strength at both low and high temperatures. Therefore, it is the most commonly used material in the chemical industry. Rahul Ferrometal provides a variety performance nickel alloys to meet the needs of our customers in the chemical industry.



## Electrical Resistance

- INCONEL
- INCOLOY

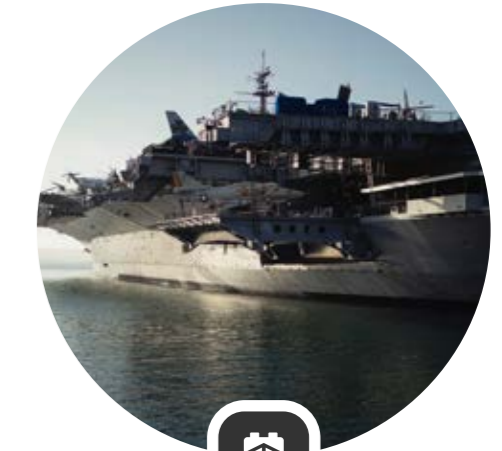
Resistance furnace is a heating furnace generate heat by pass current through the resistance wire or resistance band / strip. Among them, electric heating elements are required to have high heat resistance, high temperature strength, very low temperature coefficient of resistance and good chemical stability. Therefore, the common heating elements are nickel-chromium alloys or nickel-chromium-iron alloys (such as INCONEL and INCOLOY). Rahul Ferrometal specializes providing high-quality nickel-chromium alloy products for resistance furnace components.



## Electric & Telecom

- MONEL
- INCONEL

With the development of technology, the demand for electronic components is increasing. In order to meet this demand, Rahul Ferrometal can provide precision nickel alloy wires as welding wires for electronic components. For welding materials for electronic components, good brazing properties and low Curie temperature are very important indicators. Therefore, among the materials we produce, MONEL alloys 401 and 404 are perfect choices for soldering materials.



## Marine

- MONEL
- INCONEL
- INCOLOY
- HASTELLOY

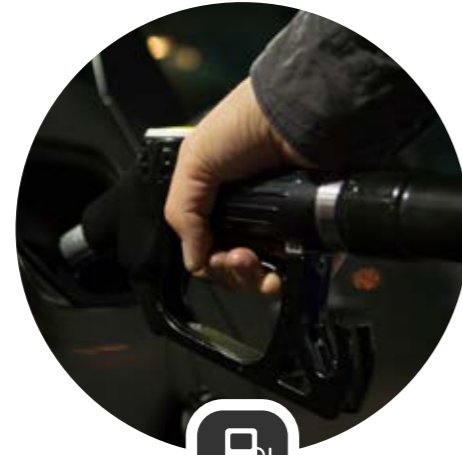
In the shipbuilding industry and other marine industries, the most important issue is how to deal with the corrosion of flowing seawater. Nickel alloy is a perfect solution, especially MONEL alloy can reduce the corrosion rate to almost negligible. At Rahul Ferrometal, solid solution strengthened alloy as the material for the ship's hull. At the same time, precipitation strengthened alloys are used as practical materials for fasteners in seawater.



## Oil & Gas

- MONEL
- INCONEL
- INCOLOY
- HASTELLOY

The oil is excavated from thousands of meters deep underground, where there is abnormally high temperature and pressure. In addition, the environment in some oil fields is very harsh, which can cause severe corrosion to metals. Rahul Ferrometal provides performance nickel alloy raw materials with excellent high-temperature corrosion resistance and high-temperature stress resistance. After being processed into casing and mandrel for drilling, it can be fully qualified for the oil exploitation environment.



## Petro Processing

- INCONEL
- INCOLOY
- HASTELLOY

The principle of crude oil refining is to distill crude oil according to the different boiling points of different components in the crude oil. Different substances (such as gasoline and diesel) can be distilled at different temperatures. The distillation temperature can reach up to 800 degrees Celsius, and the composition of crude oil is very complex. Therefore, the distillation vessel must be resistant to high temperatures and resistant to various forms of corrosion. The nickel alloy materials produced by Rahul Ferrometal are qualified for this job.



## Pollution & Waste

- INCONEL
- INCOLOY
- HASTELLOY

The waste in the industrial production process is generally treated by incineration. The temperature during incineration is extremely high and some waste materials are extremely corrosive. The nickel alloys we manufacture have superior high-temperature corrosion resistance, and provide guaranteed solutions for waste treatment in petroleum refining, natural gas processing, pharmaceutical, medical and other industries.



## Power Generation

- INCONEL
- INCOLOY
- HASTELLOY

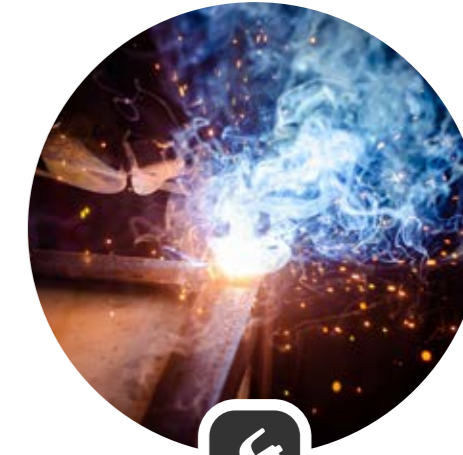
The power industry includes hydropower, coal power, gas power, and nuclear power. In addition to hydropower, other power generation methods require the support of high-temperature materials. Among them, nuclear power is one of the most widely used power generation methods of superalloys. In addition to the extreme high temperature inside the nuclear reactor, there is also a very harsh radiological environment. This makes nickel alloys an irreplaceable role in the composition of nuclear reactors.



## Thermal Processing

- INCONEL
- INCOLOY
- HASTELLOY

Different metal heat treatment requires different heat treatment temperature and heat treatment time. This requires that the furnace material can withstand different degrees of high temperature for a long time without high temperature. Rahul Ferrometal provides high-performance nickel alloy products and selects alloys with the best high-temperature creep strength to match this demand. Our materials have been verified by various practices and can perfectly cope with various heat treatment methods.



## Welding Products

- MONEL
- INCONEL
- INCOLOY
- HASTELLOY

Rahul Ferrometal produces nickel alloy welding materials corresponding to nickel alloy products. Our filler metals and welding electrodes are produced in strict accordance with AWS A5.14 and AWS A5.11 standards. And according to the standard requirements, the chemical composition of the material is fine-tuned to ensure the performance of the weld. In addition, we also provide filler metals and welding electrodes of world-renowned brands (such as Special Metals, Haynes, VDM, etc.) for you to choose from.





Nickel Alloy  
Wire

# Basic Information



## Overview

As a powerful nickel alloy materials supplier in China, Rahul Ferrometal produces and manufactures a wide range of nickel alloy wires. Nickel alloy wire is a thinner nickel alloy round material, which is manufactured by cold drawing the nickel alloy wire rods. Compared with ordinary stainless steel wire, it has better corrosion resistance and high temperature performance. As we have complete heat treatment equipment and surface treatment technology, we can provide the nickel alloy wires with different hardness and different finishes. In addition, if you need nickel alloy spring wires with higher mechanical performance requirements, we can also meet your needs.

Rahul Ferrometal supplies different nickel alloy grades: Monel(400, 401, K-500, etc), Inconel(600, 601, 625, 718, etc), Incoloy(800, 825, A-286, etc) and Hastelloy(B-2, C-22, C-276, etc). The diameter of our nickel alloy wire rod ranges from 6mm to 20mm. Customized size is also available.

Our products have higher quality and lower price. Our sales are more professional and responsible. Please don't hesitate to contact us!

## Specifications

- Dimensions:  
Diameter: 0.05mm - 15mm  
\*Customized size needs to be confirmed with us
- Classification: Spring wire, welding wire, hydrogen wire, bright wire, half-soft wire, soft wire, cold-forging wire, electrolytic wire as well as special-shaped wires.

## Standards

ASTM B164, ASTM B166, ASTM B473, ASTM B649, ASTM B691, ASTM B805

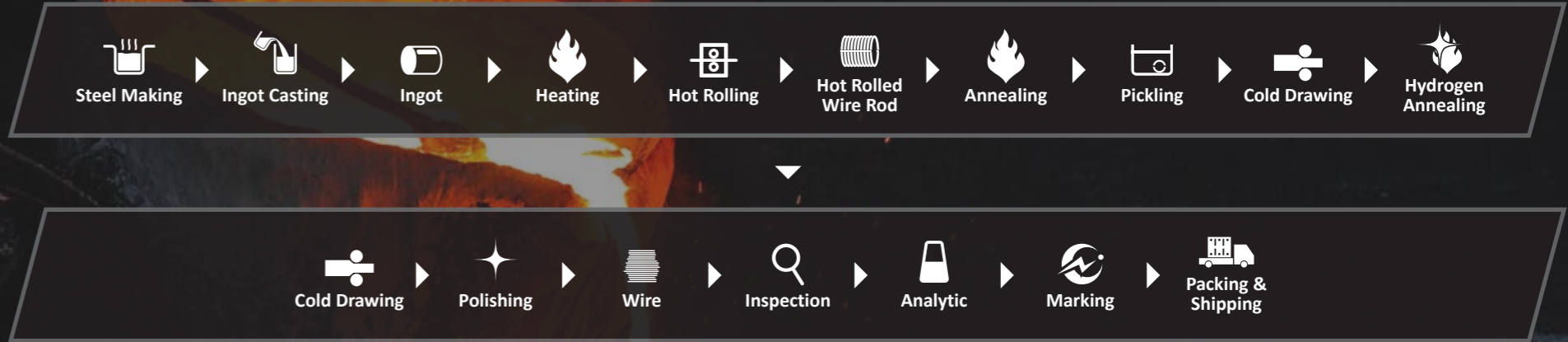
## Features

Good corrosion resistance, high temperature resistance and fatigue resistance, bright surface, precise size, optional hardness and shape.

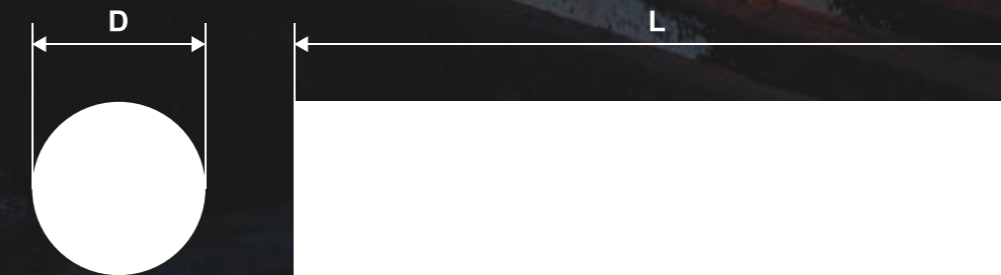
## Applications

Industrial electric furnaces, household appliances, far-infrared devices, petrochemicals, LNG, high-pressure boilers, nuclear power, marine industry, shipbuilding, energy conservation and environmental protection, aerospace and military industry, health care, etc.

## Manufacturing Process



## Drawing & Formula



Formula:  $m = D \text{ (mm)} \times D \text{ (mm)} \times L \text{ (m)} \times \rho \text{ (g/cm}^3\text{)} \times \pi \div 4000$   
 D = Diameter, L = Length,  $\rho$  = Density,  $\pi = 3.1415926...$

## Tolerance

| Specified Diameter, in. (mm)              | Diameter Tolerance, in. (mm) |               |
|---|------------------------------|---------------|
|   | Over                         | Under         |
| 0.5000(12.70)                             | 0.002(0.05)                  | 0.002(0.05)   |
| Under 0.5000(12.70) to 0.3125(7.94), incl | 0.0015(0.04)                 | 0.0015(0.04)  |
| Under 0.3125(7.94) to 0.0440(1.12), incl  | 0.001(0.03)                  | 0.001(0.03)   |
| Under 0.0440(1.12) to 0.0330(0.84), incl  | 0.0008(0.02)                 | 0.0008(0.02)  |
| Under 0.0330(0.84) to 0.0240(0.61), incl  | 0.0005(0.013)                | 0.0005(0.013) |
| Under 0.0240(0.61) to 0.0120(0.30), incl  | 0.0004(0.010)                | 0.0004(0.010) |
| Under 0.0120(0.30) to 0.0080(0.20), incl  | 0.0003(0.008)                | 0.0003(0.008) |
| Under 0.0080(0.20) to 0.0048(0.12), incl  | 0.0002(0.005)                | 0.0002(0.005) |
| Under 0.0048(0.12) to 0.0030(0.08), incl  | 0.0001(0.003)                | 0.0001(0.003) |

## Delivery State

| Delivery State Choice | Surface Condition |
|-----------------------|-------------------|
| Soft                  | Bright            |
|                       | Polished          |
| Half-Soft             | Bright            |
|                       | Polished          |
| Hard                  | Bright            |
|                       | Polished          |

**Note:**

1. If you require different deliver state than the above listed, kindly confirm with us.
2. In case of any enquiry or order, please kindly let us know any extra requirement not indicated here.



## Package



Carton Box



Wood Reel



Plastic Bag



Wooden Case

At Rahul Ferrometal, all our nickel alloy wires are packaged in with international standards to prevent any possible damage or loss. By default, we will pack the rolled nickel alloy wire in plastic bag or wind it on a wood reel, and then put it in wooden case for further protection. For nickel alloy straightend wires, we will put it in carton box. Please be kindly noted that wooden case can incur extra cost by its own, and at times can increase the freight, which is especially remarkable for air transportation. In addition, in order to meet more needs, we can also customize the packaging according to your requirements.

## Logistics



By Sea



By Air

Sea transportation is the most popular for most orders, hence regarded as the default transportation mode. Accordingly, quotation is thus made as per FOB, CFR, CIF etc.. For urgent demand, we can also offer as per air transportation.

## FAQ

**Q**

What is the minimum order quantity for nickel alloy wire?

Usually, our minimum order quantity of nickel alloy wire is 50KG. For specific grades and sizes, it is recommended to confirm with us.

**A**

**Q**

What type of nickel alloy wire do you produce?

1. nickel alloy welding wire
2. nickel alloy spring wire
3. nickel alloy hydrogen wire
4. nickel alloy bright wire
5. nickel alloy soft wire
6. nickel alloy half-soft wire
7. nickel alloy hard wire
8. nickel alloy cold-forging wire
9. nickel alloy electrolytic wire
10. nickel alloy special-shaped wires

**A**

**Q**

What is the delivery state of nickel alloy wire?

Soft, half-soft, hard. For specific applications, please inform us of the tensile strength requirements to ensure that the products we produce are what you want.

**A**

**Q**

Can I get samples?

In order to follow our industry standard practice, we can provide free samples for you to check our quality, but the freight will be borne by you.

**A**

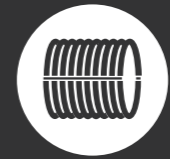
**Q**

Can I add our label or sticker on the packaging?

As long as there is no copyright infringement involved, we support this service.

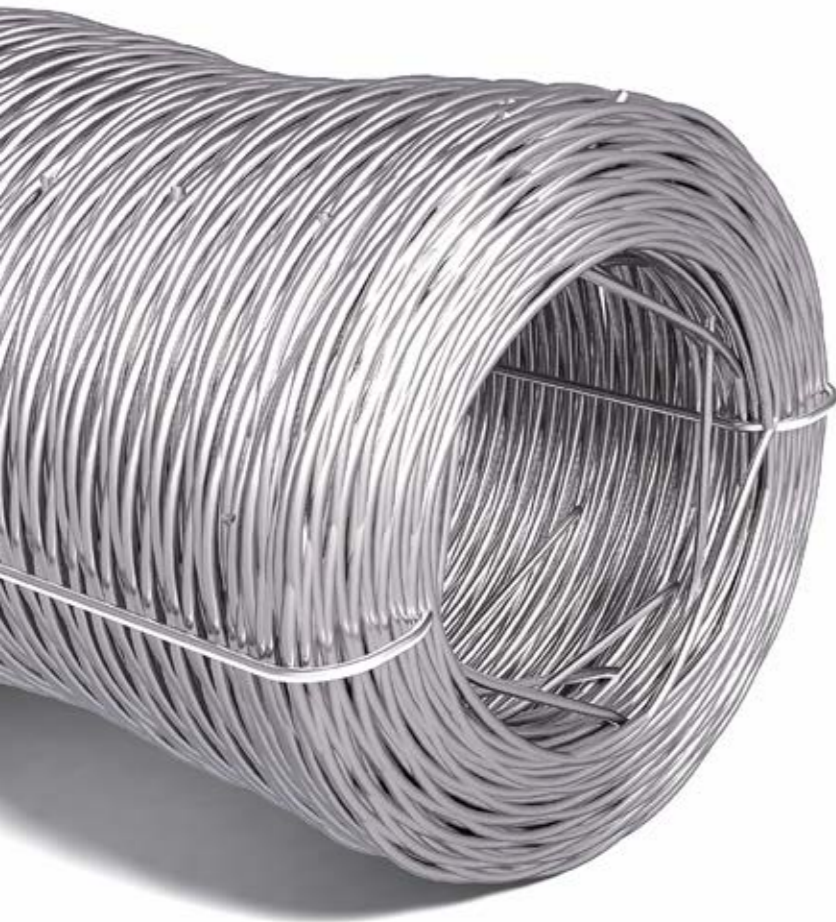
**A**





Nickel Alloy  
Wire Rod

# Basic Information



## Overview

As a Chinese leading nickel alloy materials supplier, AEETHER produces and manufactures cost-effective nickel alloy wire rod. Nickel alloy wire rod is a coiled nickel alloy rod, which is continuously hot rolled from a nickel alloy ingot. The nickel alloy wire produced by Rahul Ferrometal outstanding corrosion resistance and high temperature resistance, excellent roundness and white surface. Nickel alloy wire rod also has good flexibility and workability, so it is also the raw material for our various nickel alloy wires. We produce high-quality nickel alloy wire rod in strict accordance with ISO 9001 standards.

AEETHER supplies different nickel alloy grades: Monel(400, 401, K-500, etc), Inconel(600, 601, 625, 718, etc), Incoloy(800, 825, A-286, etc) and Hastelloy(B-2, C-22, C-276, etc). The diameter of our nickel alloy wire rod ranges from 6mm to 20mm. Customized size is also available.

Our products have higher quality and lower price. Our sales are more professional and responsible. Please don't hesitate to contact us!

## Specifications

- Diameter: 6mm - 20mm
- Delivery State: Hot Rolled, Cold Drawn
- Weight: 100kg per roll

## Standards

ASTM B160, ASTM B164, ASTM B166, ASTM B335, ASTM B408, ASTM B425, ASTM B446, ASTM B472, ASTM B473, ASTM B572, ASTM B573, ASTM B574, ASTM B581, ASTM B691, ASTM B805

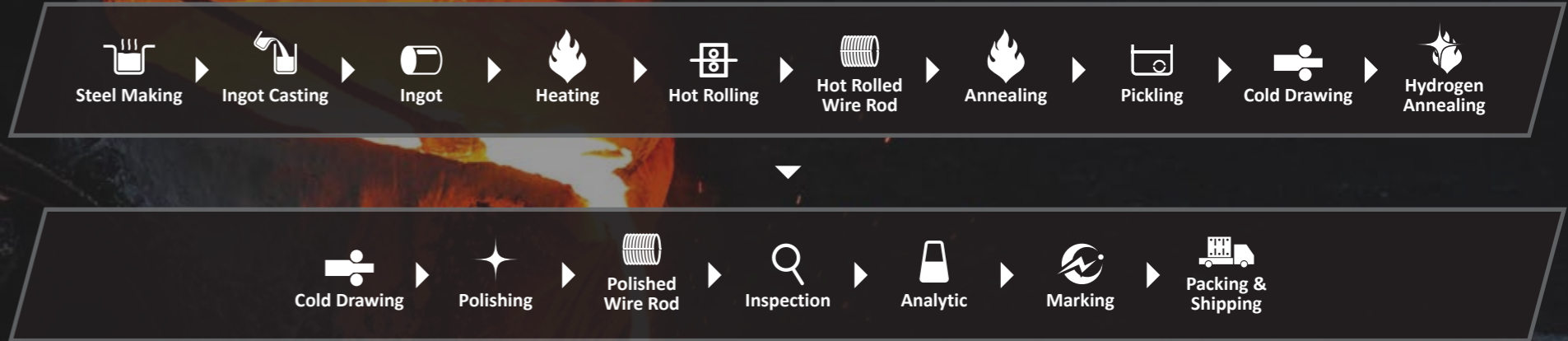
## Features

Outstanding corrosion resistance, high temperature resistance and fatigue resistance, excellent roundness, white surface, wide application.

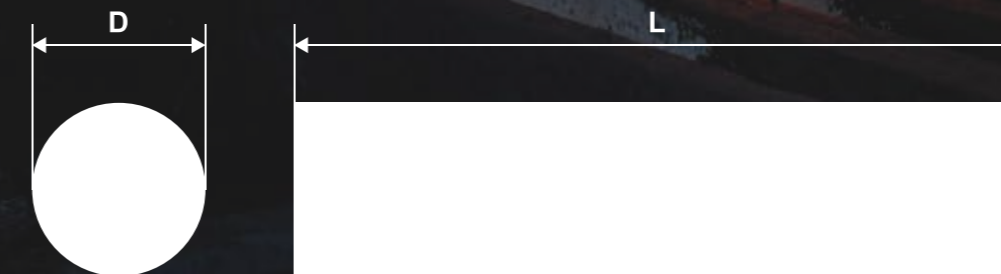
## Applications

Petrochemical, LNG, high-pressure boilers, nuclear power, marine industry, shipbuilding, energy conservation and environmental protection, aerospace and military industry, health care, etc.

## Manufacturing Process



## Drawing & Formula



$$\text{Formula: } m = D \text{ (mm)} \times D \text{ (mm)} \times L \text{ (m)} \times \rho \text{ (g/cm}^3\text{)} \times \pi \div 4000$$

D = Diameter, L = Length,  $\rho$  = Density,  $\pi = 3.1415926...$

## Tolerance

| Cold Drawn                                |  |              |                        |
|---|--|--------------|------------------------|
| Specified Diameter, in. (mm)              | Diameter Tolerance, in. (mm)                         |              |                        |
|   | Over   | Under        |                        |
| 0.5000(12.70)                             | 0.002(0.05)  | 0.002(0.05)  |                        |
| Under 0.5000(12.70) to 0.3125(7.94), incl | 0.0015(0.04)   | 0.0015(0.04) |                        |
| Under 0.3125(7.94) to 0.0440(1.12), incl  | 0.001(0.03)  | 0.001(0.03)  |                        |
| Under 0.0440(1.12) to 0.0330(0.84), incl  | 0.0008(0.02)   | 0.0008(0.02) |                        |
| Hot Rolled                                |  |              |                        |
|   | Permissible Variations from Specified Size, in. (mm) |              | Out-of-Round, in. (mm) |
|   | Over   | Under        |                        |
| Over 5/16(7.94) to 7/16(11.11), incl      | 0.006(0.15)  | 0.006(0.15)  | 0.009(0.23)            |
| Over 7/16(11.11) to 5/8(15.88), incl      | 0.007(0.18)  | 0.007(0.18)  | 0.010(0.25)            |
| Over 5/8(15.88) to 7/8(22.22), incl       | 0.008(0.20)  | 0.008(0.20)  | 0.012(0.30)            |
| Over 7/8(22.22) to 1(25.40), incl         | 0.009(0.23)  | 0.009(0.23)  | 0.013(0.33)            |
| Over 1(25.40) to 9/8(28.58), incl         | 0.010(0.25)  | 0.010(0.25)  | 0.015(0.38)            |

|                                      |             |             |             |
|--------------------------------------|-------------|-------------|-------------|
| Over 9/8(28.58) to 5/4(31.75), incl  | 0.011(0.28) | 0.011(0.28) | 0.016(0.41) |
| Over 5/4(31.75) to 11/8(34.92), incl | 0.012(0.30) | 0.012(0.30) | 0.018(0.46) |
| Over 11/8(34.92) to 3/2(38.10), incl | 0.014(0.36) | 0.014(0.36) | 0.021(0.53) |
| Over 3/2(38.10) to 2(50.80), incl    | 1/64(0.40)  | 1/64(0.40)  | 0.023(0.58) |
| Over 2(50.80) to 5/2(63.50), incl    | 1/32(0.79)  | 0           | 0.023(0.58) |
| Over 5/2(63.50) to 7/2(88.90), incl  | 3/64(1.19)  | 0           | 0.035(0.89) |
| Over 7/2(88.90) to 9/2(114.30), incl | 1/16(1.59)  | 0           | 0.046(1.17) |

## Delivery State

| Delivery State Choice | Surface Condition |
|-----------------------|-------------------|
| Hot Rolled            | Pickled           |
|                       | Polished          |
| Cold Drawn            | Bright            |
|                       | Polished          |

Note:

1. If you require different deliver state than the above listed, kindly confirm with us.
2. In case of any enquiry or order, please kindly let us know any extra requirement not indicated here.

## FAQ

Q

What is your standard packaging?

Our packaging can be waterproof thick woven plastic bags, wood reels and wooden cases.

A

Q

Where is your main market?

South America, North America, Asia, Middle East, Europe, Africa etc.

A

Q

How long is your delivery time?

Usually, it takes three weeks to order nickel alloy wire rod to complete production, but the delivery time may also be affected by other factors, such as special grades, special sizes, large quantities of the product itself, or force majeure.

A

Q

What are your main production standards?

- ASTM B160, ASTM B164, ASTM B166
- ASTM B335
- ASTM B408, ASTM B425, ASTM B446, ASTM B472, ASTM B473
- ASTM B572, ASTM B573, ASTM B574, ASTM B581
- ASTM B691
- ASTM B805

A

Q

What is your minimum order quantity?

Usually, our MOQ is 100kg. If you are not sure about your situation, please contact us.

A

## Package



Plastic Bag



Wood Reel



Wooden Case

At Rahul Ferrometal, our nickel alloy wire rods are packed per international standard to prevent any possible damage. By default we will use plastic bags to pack the wire rods. However, for those wire rods that are susceptible to dirt pollution, scraping, stress or man-handling damages, we suggest wooden case or wood reel for protection. Please be kindly noted that wooden case can incur extra cost by its own, and at times can increase the freight, which is especially remarkable for air transportation. For enhanced user experience, we will pack as per your diverged requirements.

## Logistics



By Sea



By Air

Sea transportation is the most popular for most orders, hence regarded as the default transportation mode. Accordingly, quotation is thus made as per FOB, CFR, CIF etc.. For urgent demand, we can also offer as per air transportation.



**Rahul Ferrometal**





Nickel Alloy  
Filler Metal



# Basic Information

## Overview

As a Chinese leading nickel alloy wires manufacturer, Rahul Ferrrometal produces supplies high performance nickel alloy filler metal. Nickel alloy filler metal, also called nickel alloy welding wire, is a kind of nickel alloy wires with excellent welding performance. Nickel alloy filler metal can be used for welding mainstream nickel alloys, such as INCONEL series alloys, INCOLOY series alloys, and MONEL series alloys. It can also be used to weld stainless steel and carbon steel. Nickel alloy filler metal is used to weld various nickel alloys by MIG welding, tungsten inert gas shielded welding and submerged arc welding. It can also be used for surfacing welding of steel.

Rahul Ferrrometal supplies different nickel filler metal grades in AWS A5.14 such as ERNiCu-7, ERNiCrMo-3, ERNiCr-3, ERNiCrCoMo-1, ERNiFeCr-2, etc. The diameter of our nickel alloy filler metal ranges from 0.5mm to 8mm. Customized size is also available.

Our products have higher quality and lower price. Our sales are more professional and responsible. Please don't hesitate to contact us!

## Specifications

- Diameter: 0.5mm - 6.4mm
- \*Customized size needs to be confirmed with us
- Main grades: ERNiCu-7, ERNiCrMo-3, ERNiCrMo-4, ERNiCr-3, ERNiCrCoMo-1, ERNiFeCr-2, etc.

## Standards

AWS A5.02, AWS A5.14

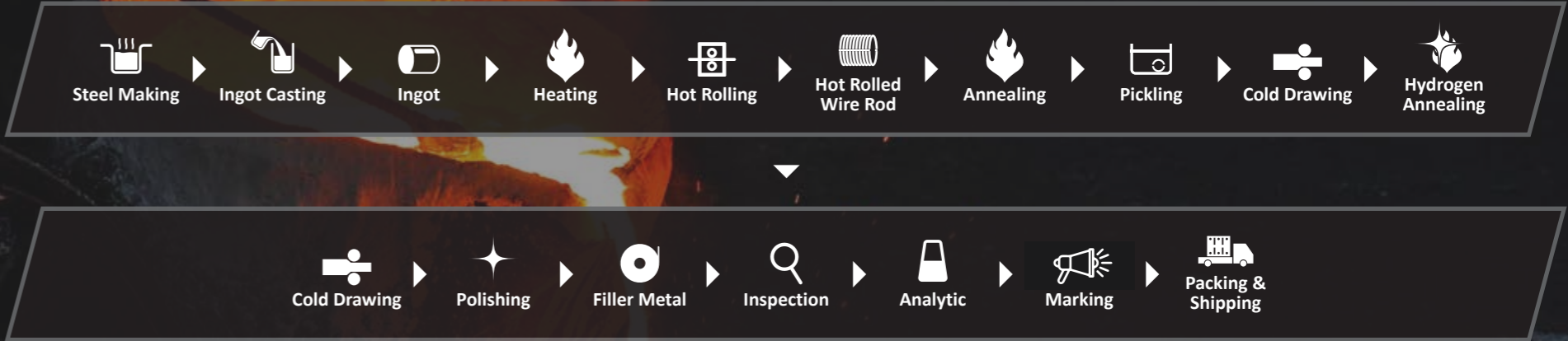
## Features

The weld formed by nickel alloy filler metal has higher strength and better corrosion resistance, better oxidation resistance and higher creep rupture strength at high temperature.

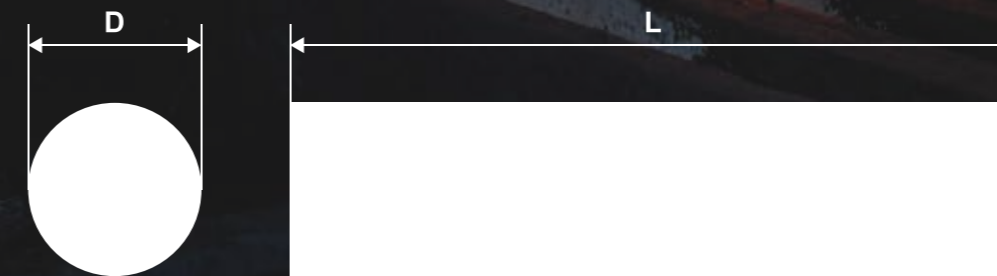
## Applications

Dissimilar material welding, multi-layer welding, steel surfacing welding, etc.  
Marine, environmental protection, energy, petrochemical, food, etc.

## Manufacturing Process



## Drawing & Formula



Formula:  $m = D \text{ (mm)} \times D \text{ (mm)} \times L \text{ (m)} \times \rho \text{ (g/cm}^3\text{)} \times \pi \div 4000$   
D = Diameter, L = Length,  $\rho$  = Density,  $\pi = 3.1415926...$

## Size & Tolerance

| Nominal Diameter |          | Solid Wire Tolerance |             |             |       | Tubular Cored Wire Tolerance |             |
|------------------|----------|----------------------|-------------|-------------|-------|------------------------------|-------------|
|                  |          | GMAW/GTAW            |             | SAW/EGW/ESW |       |                              |             |
| in               | mm       | in                   | mm          | in          | mm    | in                           | mm          |
| 0.020            | 0.5      |                      |             |             |       |                              |             |
|                  | 0.6      |                      |             |             |       |                              |             |
| 0.025            |          |                      | +0.01/-0.03 |             |       |                              |             |
| 0.030            |          | ±0.001               |             |             |       |                              |             |
|                  | 0.8      |                      |             |             |       |                              |             |
| 0.035            | 0.9      |                      |             |             |       |                              |             |
|                  | 1.0      |                      |             |             |       |                              |             |
| 0.045            |          |                      |             |             |       | ±0.002                       | +0.02/-0.05 |
| 3/64             | 1.2      |                      |             |             |       |                              |             |
| 0.052            |          |                      | +0.01/-0.04 |             |       |                              |             |
|                  | 1.4      |                      |             |             |       |                              |             |
| 1/16             | 1.6      | ±0.002               |             |             | ±0.04 |                              |             |
| 0.068            |          |                      |             |             |       |                              |             |
| 0.072            | 1.8      |                      |             | ±0.002      |       |                              | +0.02/-0.06 |
| 5/64             | 2.0      |                      |             |             |       |                              |             |
| 3/32             | 2.4, 2.5 |                      |             |             |       | ±0.003                       |             |
| 7/64             | 2.8      |                      |             |             |       |                              |             |
|                  | 3.0      | ±0.003               |             | ±0.003      |       |                              |             |
| 1/8              | 3.2      |                      | +0.01/-0.07 |             |       |                              | +0.02/-0.07 |
| 5/32             | 4.0      |                      |             |             |       |                              |             |
| 3/16             | 4.8      |                      |             |             |       |                              |             |
|                  | 5.0      |                      |             |             | ±0.06 |                              |             |
| 7/32             | 5.6      |                      |             | ±0.004      |       | ±0.004                       |             |
|                  | 6.0      |                      |             |             |       |                              | +0.02/-0.08 |
| 1/4              | 6.4      |                      |             |             |       |                              |             |
| 5/16             | 8.0      |                      |             |             |       |                              |             |



## Package



Carton Box



Wood Reel



Plastic Bag



Wooden Case

At Rahul Ferrometal, all our nickel alloy filler metals are packaged accordance with international standards to prevent any possible damage or loss. By default, we will pack the rolled nickel alloy filler metal in plastic bag or wind it on a wood reel, and then put it in wooden case for further protection. For nickel alloy straightend filler metals, we will put it in carton box. Please be kindly noted that wooden case can incur extra cost by its own, and at times can increase the freight, which is especially remarkable for air transportation. In addition, in order to meet more needs, we can also customize the packaging according to your requirements.

## Logistics



By Sea



By Air

Sea transportation is the most popular for most orders, hence regarded as the default transportation mode. Accordingly, quotation is thus made as per FOB, CFR, CIF etc.. For urgent demand, we can also offer as per air transportation.

## FAQ

Q

What is the standard diameter? Can you supply nickel alloy filler metal with other diameters?

The diameter of the nickel alloy filler metal we produce is generally 0.9mm, 1.0mm, 1.2mm, 1.6mm, etc. If you need special diameters, you can contact us at any time to customize.

A

Q

Where is your main market?

South America, North America, Asia, Middle East, Europe, Africa etc.

A

Q

Can I get samples?

In order to follow our industry standard practice, we can provide free samples for you to check our quality, but the freight will be borne by you.

A

Q

Can I add our label or sticker on the packaging?

As long as there is no copyright infringement involved, we support this service.

A

Q

What is the minimum order quantity for nickel alloy filler metal?

Usually, our minimum order quantity of nickel alloy wire is 200KG. For specific grades and sizes, it is recommended to confirm with us.

A





Nickel Alloy  
Welding Electrode

# Basic Information

## Features

Excellent mechanical properties and heat resistance, corrosion resistance, fusion and crack resistance.

## Overview

As a powerful nickel alloy wires supplier in China, AEETHER produces and manufactures various of nickel alloy welding electrodes. Nickel alloy welding electrode is mainly used for welding nickel or nickel alloys. According to the structure, the nickel alloy electrode can be divided into two parts: core wire and covering. Core wire is the metal core of nickel alloy welding electrode, which is straightened from nickel alloy wire. In order to ensure the quality and performance of the weld, we have strict regulations on the content of each metal element in the core wire. The covering of the nickel alloy welding electrode plays an extremely important role in the welding process. If the welding electrode without covering is used, the mechanical properties (strength, impact value, etc.) of the weld will be greatly reduced.

Rahul Ferrometal supplies different nickel welding electrode grades in AWS A5.11 such as ENi-1, ENiCu-7, ENiCrFe-12, ENiCrMo-3, ENiCrCoMo-1, etc. The diameter of our nickel alloy welding electrode ranges from 1.6mm to 8.0mm. Customized size is also available.

Our products have higher quality and lower price. Our sales are more professional and responsible. Please don't hesitate to contact us!

## Specifications

- Diameter: 2.0mm - 5.0mm
- \*Customized size needs to be confirmed with us
- Main Grades:  
ENi-1, ENiCr-4, ENiCu-7,  
ENiCrFe-1/2/3/4/9/10, ENiCrFe-7/13/15,  
ENiCrFe-12, ENiCrFeSi-1,  
ENiMo-1/3/7/8/9/10, ENiMo-11,  
ENiMoCr-1, ENiCrMo-1/9/11,  
ENiCrMo-2, ENiCrMo-3,  
ENiCrMo-4/5/7/10/13/14/19/2, etc.

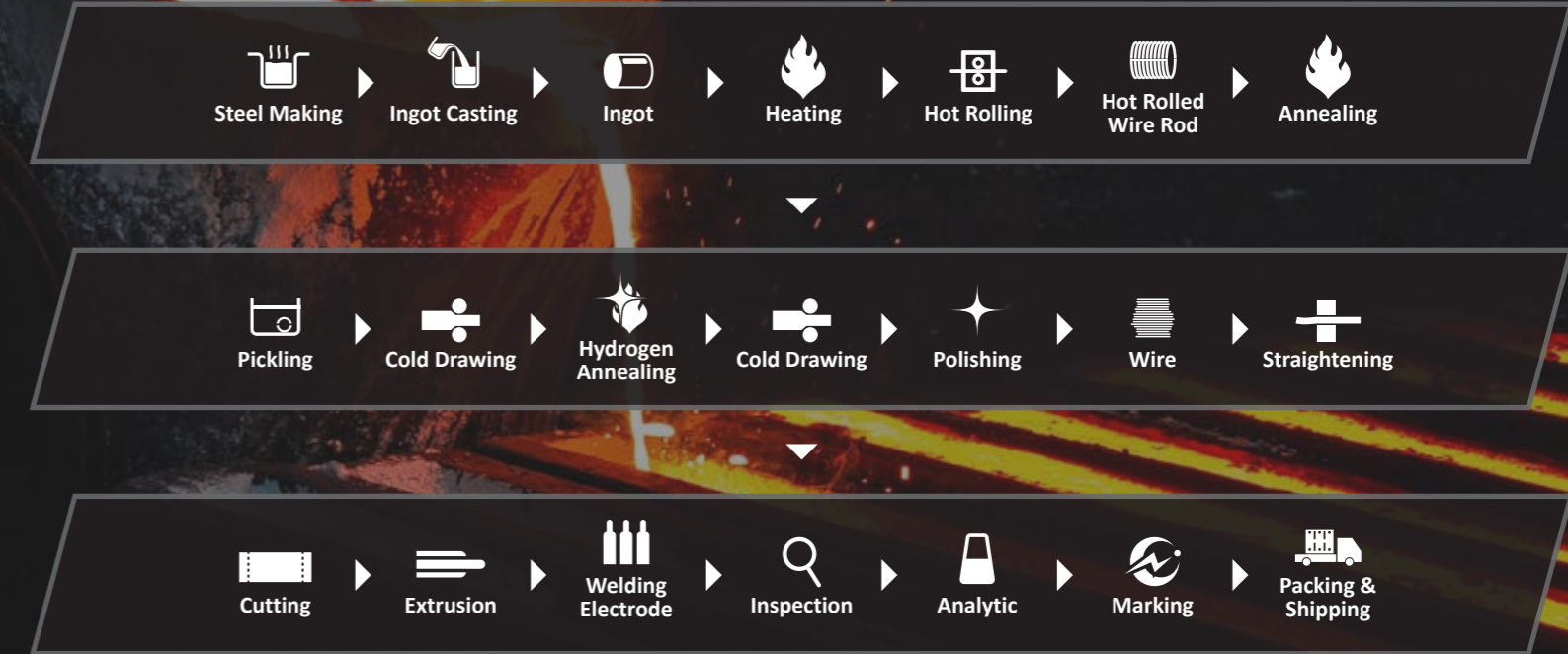
## Standards

AWS A5.02, AWS A5.11

## Applications

Welding of nickel alloys and bimetals in chemical equipment, food industry, medical equipment manufacturing, nuclear engineering, sulfuric acid, nitric acid and hydrogen fluoride manufacturing equipment, welding of evaporator tube plate joints, it can also be used for clad steel, dissimilar steel and the same type nickel alloy welding.

## Manufacturing Process



## Standard Sizes and Lengths

| Standard Size |     | Standard Length |                  |
|---------------|-----|-----------------|------------------|
| in            | mm  | in              | mm               |
| 1/16          | 1.6 | 9               | 230              |
| 5/64          | 2.0 | 9 or 12         | 230 or 300       |
| 3/32          | 2.4 | 9, 12, or 14    | 230, 300, or 350 |
| —             | 2.5 | —               | 300 or 350       |
| 1/8           | 3.2 | 12, 14, or 18   | 300, 350, or 450 |
| 5/32          | 4.0 | 14 or 18        | 350 or 450       |
| 3/16          | 4.8 | 14 or 18        | 350 or 450       |
| —             | 5.0 | 14 or 18        | 350 or 450       |
| 7/32          | 5.6 | 14 or 18        | 350 or 450       |
| —             | 6.0 | 14 or 18        | 350 or 450       |
| 1/4           | 6.4 | 14 or 18        | 450              |
| 5/16          | 8.0 | 18              | 450              |

## Package



Plastic Box



Carton Box



Wooden Case

At Rahul Ferrometal, all our nickel alloy welding electrodes packaged in accordance with international standards to prevent any possible damage or loss. By default, we put the finished nickel alloy welding electrodes in thick carton boxes or plastic boxes. Then we put it in a wooden case for further protection. Please note that wooden cases may incur additional costs, not only their own costs, but also increase freight costs, which is especially true for air transportation. In order to enhance the customer experience, we also provide special packaging according to your special requirements.

## Logistics



By Sea



By Air

Sea transportation is the most popular for most orders, hence regarded as the default transportation mode. Accordingly, quotation is thus made as per FOB, CFR, CIF etc.. For urgent demand, we can also offer as per air transportation.

## FAQ

Q

What is the standard diameter? Can you supply nickel alloy welding electrode with other diameters?

The diameter of the nickel alloy welding electrode we produce is generally 1.6mm - 8.0mm. If you need special diameters, you can contact us at any time to customize.

A

Q

Where is your main market?

South America, North America, Asia, Middle East, Europe, Africa etc.

A

Q

Can I get samples?

In order to follow our industry standard practice, we can provide free samples for you to check our quality, but the freight will be borne by you.

A

Q

Can I add our label or sticker on the packaging?

As long as there is no copyright infringement involved, we support this service.

A

Q

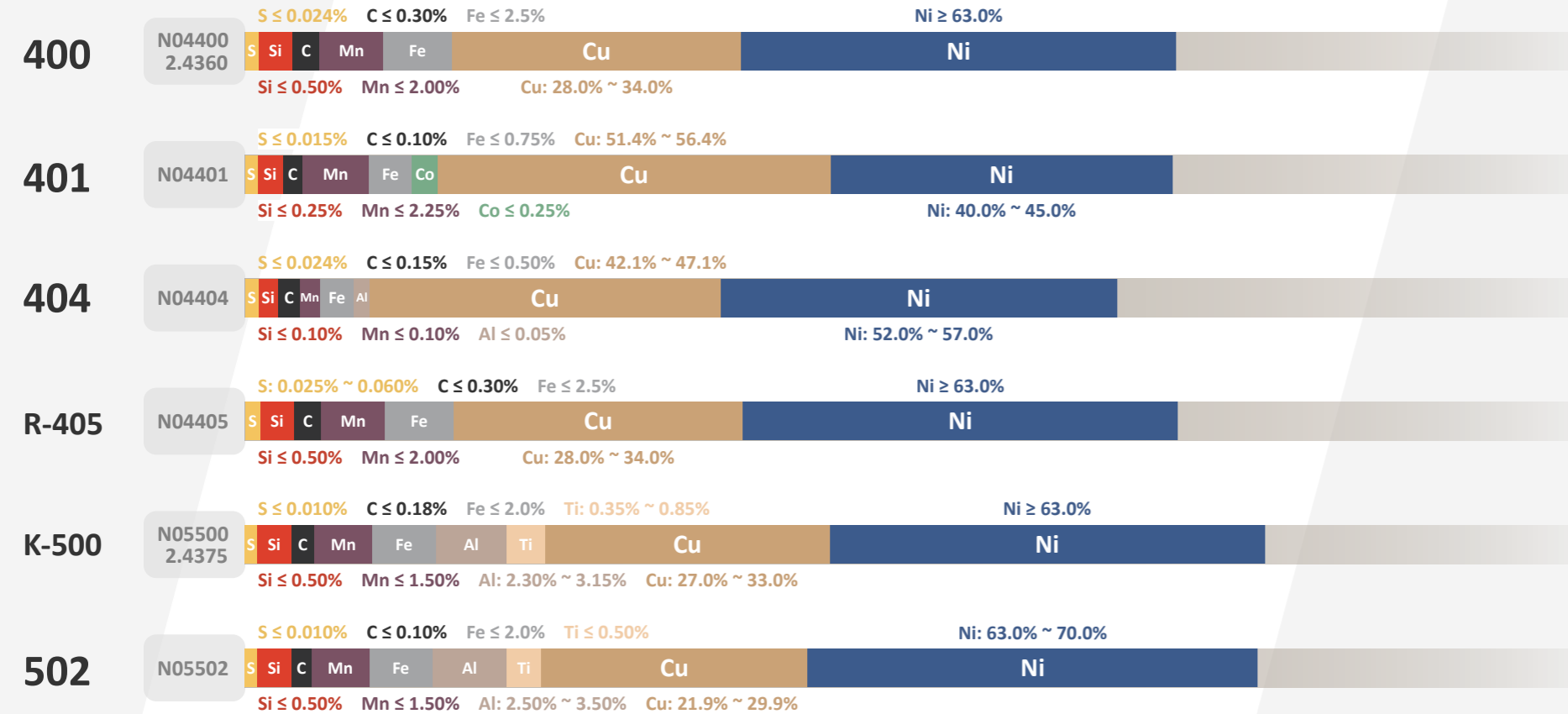
What is the minimum order quantity for nickel alloy welding electrode?

Usually, our minimum order quantity of nickel alloy welding electrode is 200KG. For specific grades and sizes, it is recommended to confirm with us.

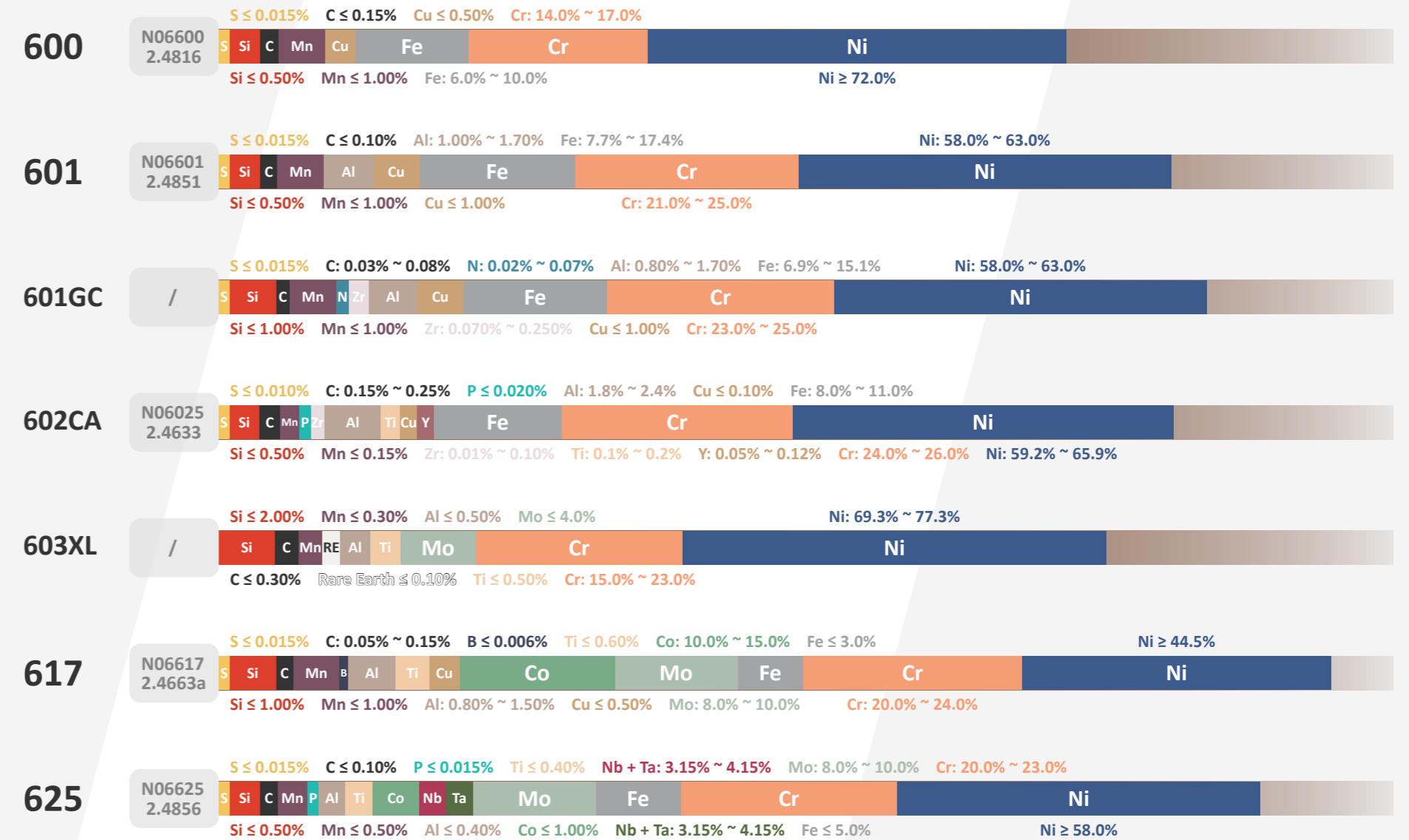
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# GRADES AVAILABLE

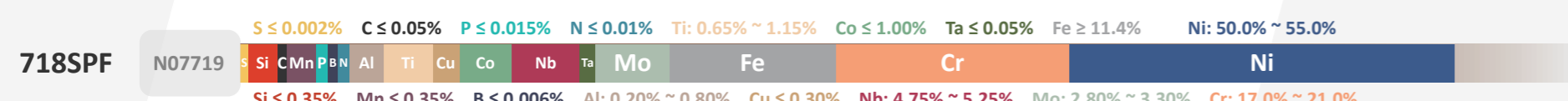
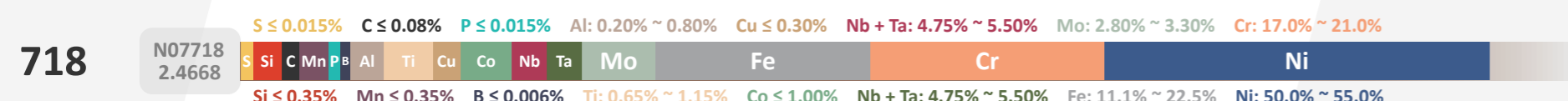
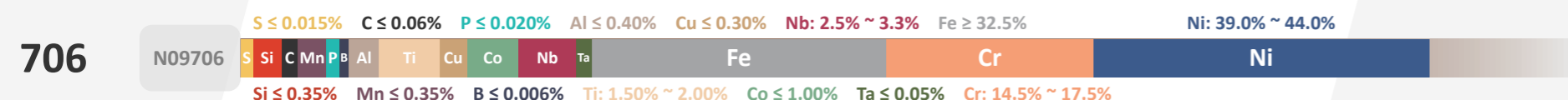
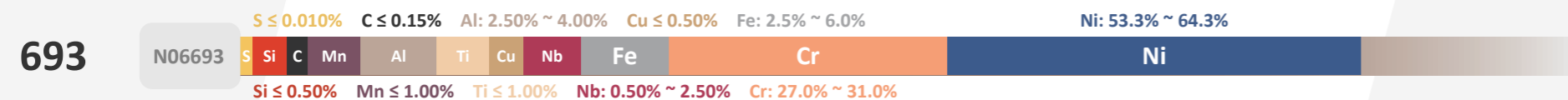
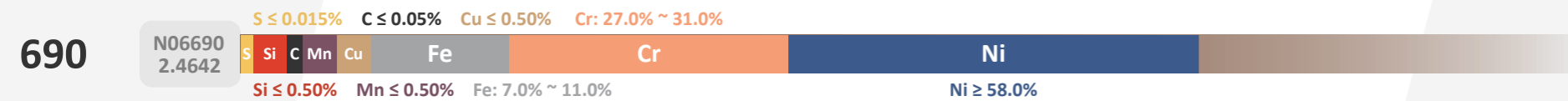
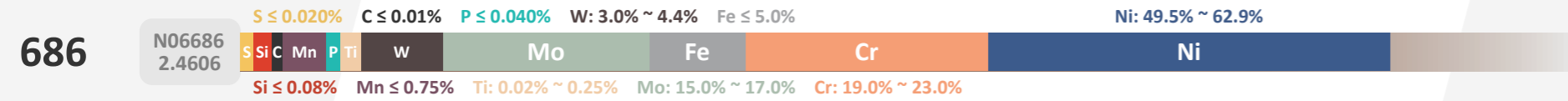
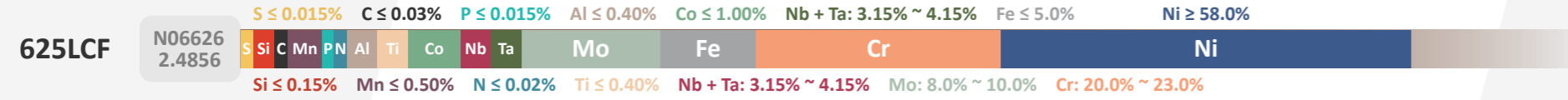
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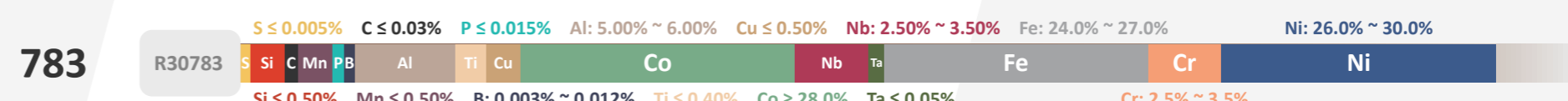
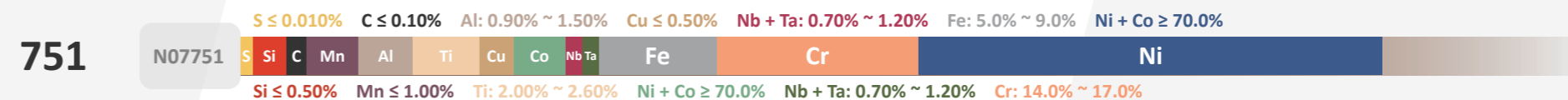
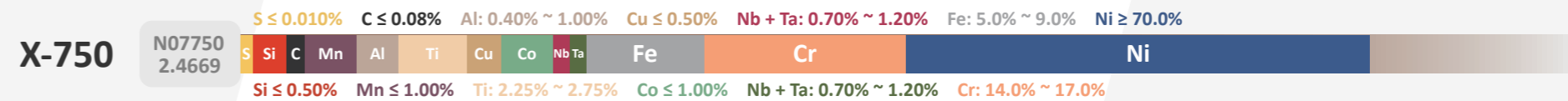
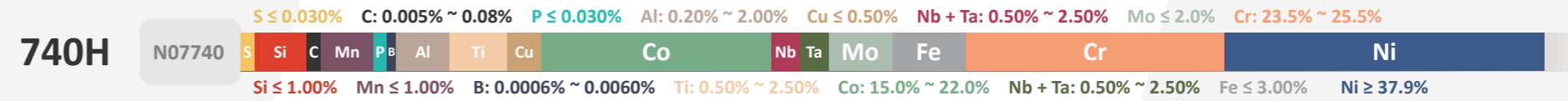
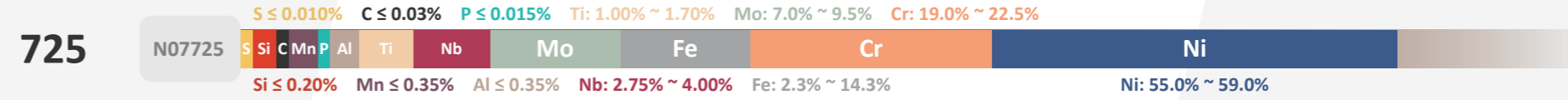
## INCONEL



# INCONEL

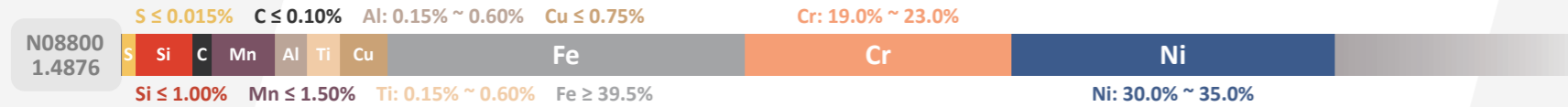


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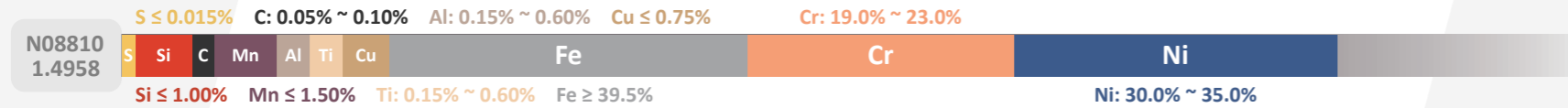


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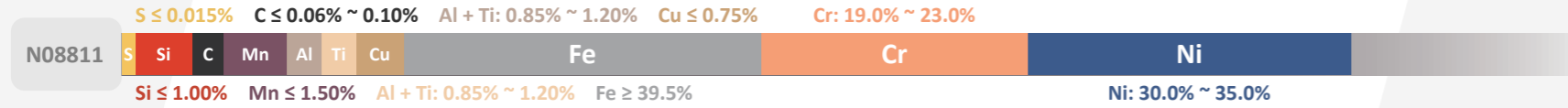
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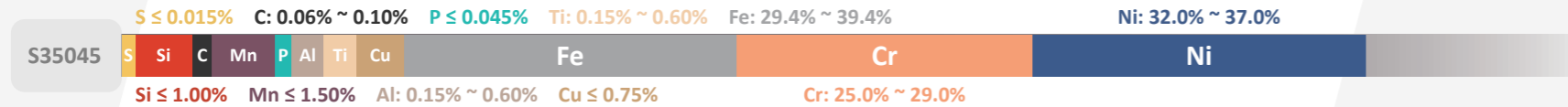
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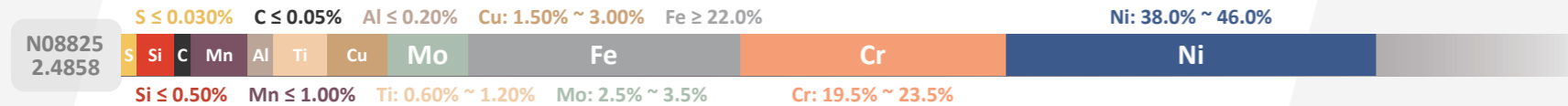
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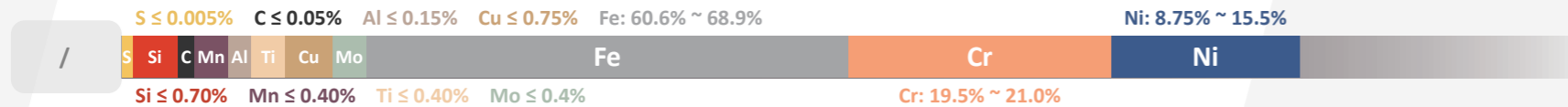
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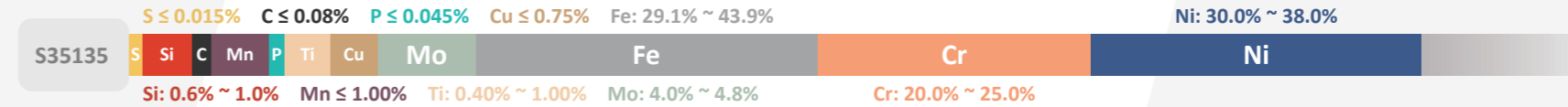


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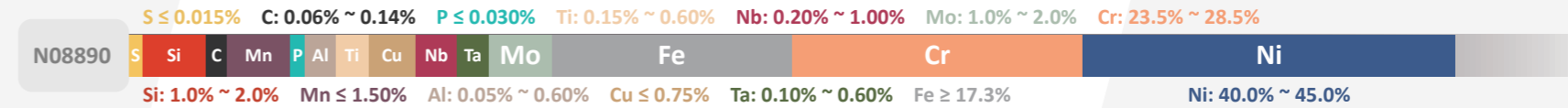


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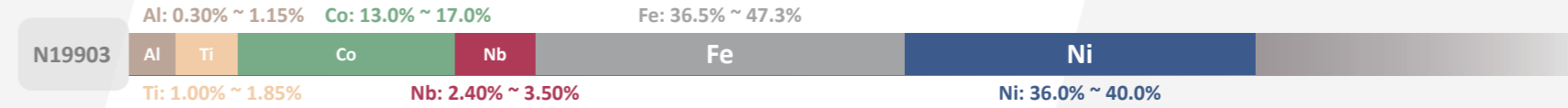
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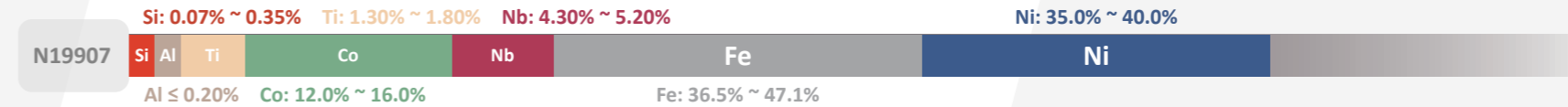
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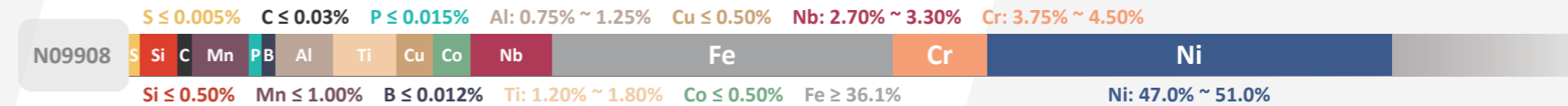
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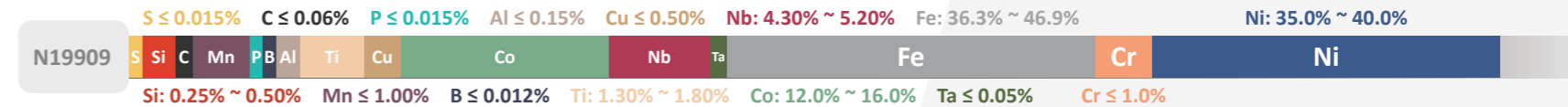
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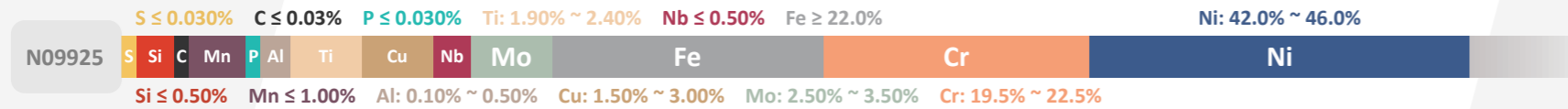
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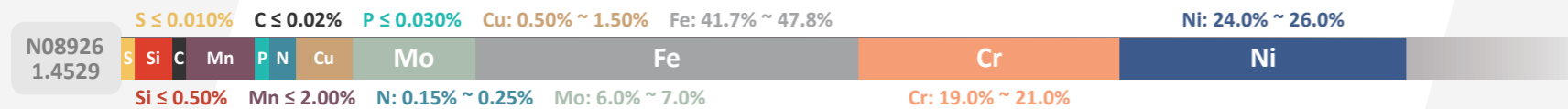


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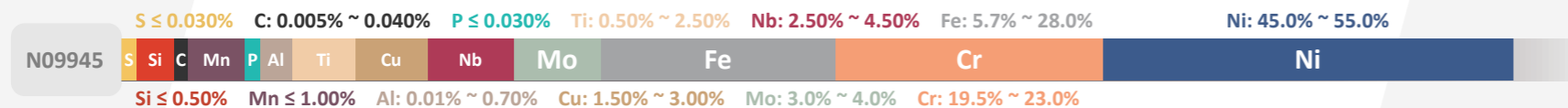
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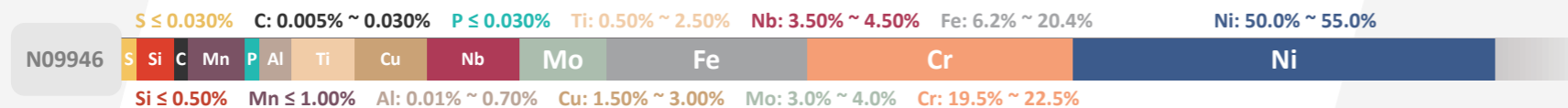
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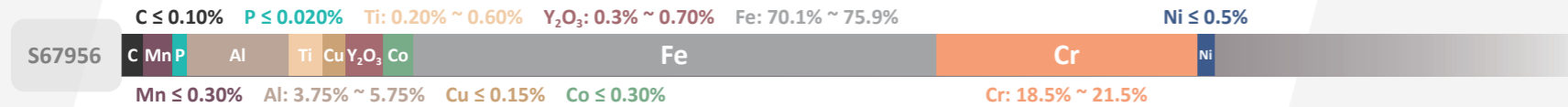
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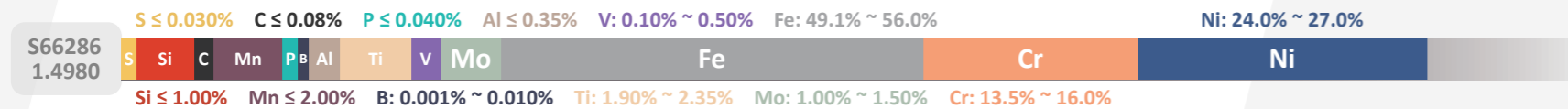
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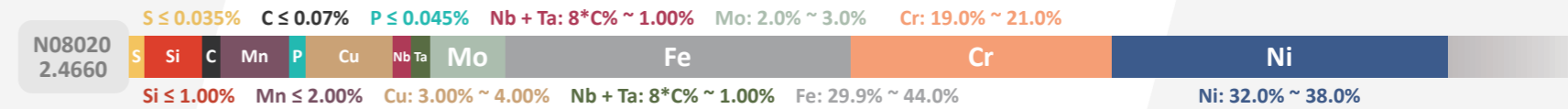


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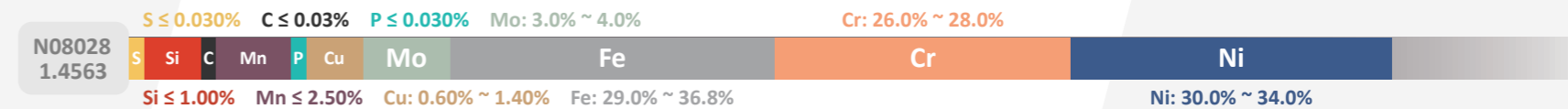


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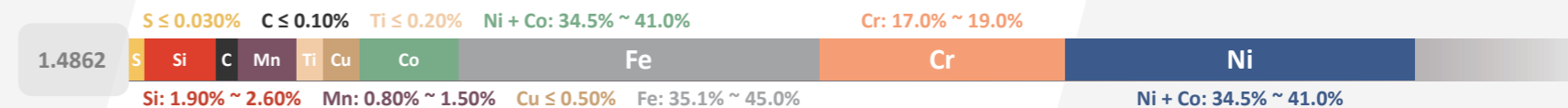
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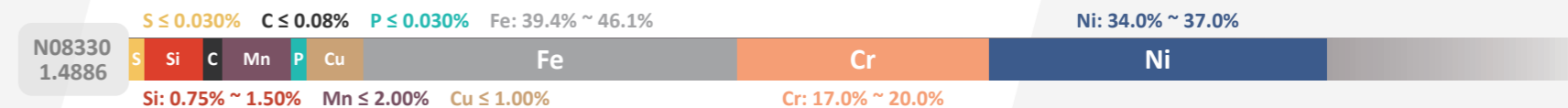
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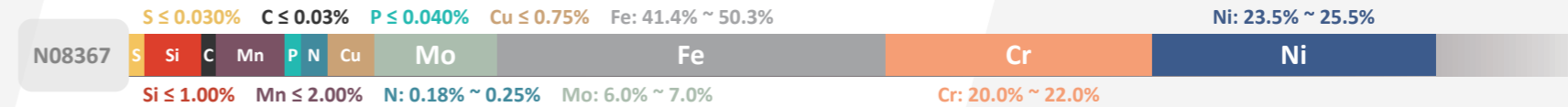
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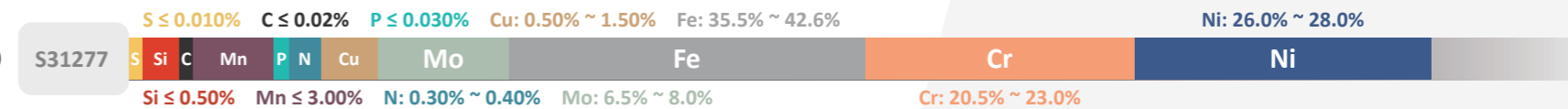
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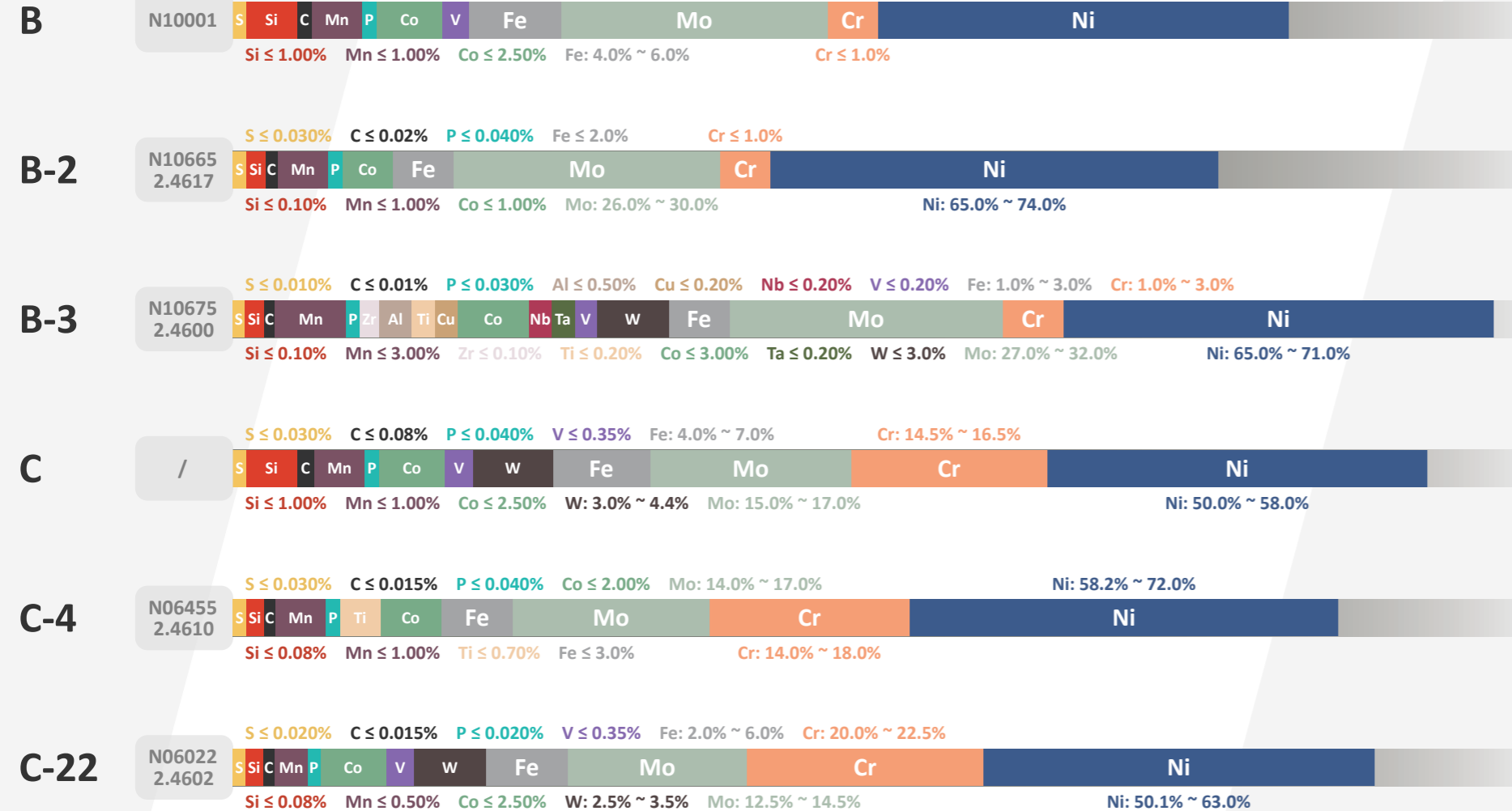
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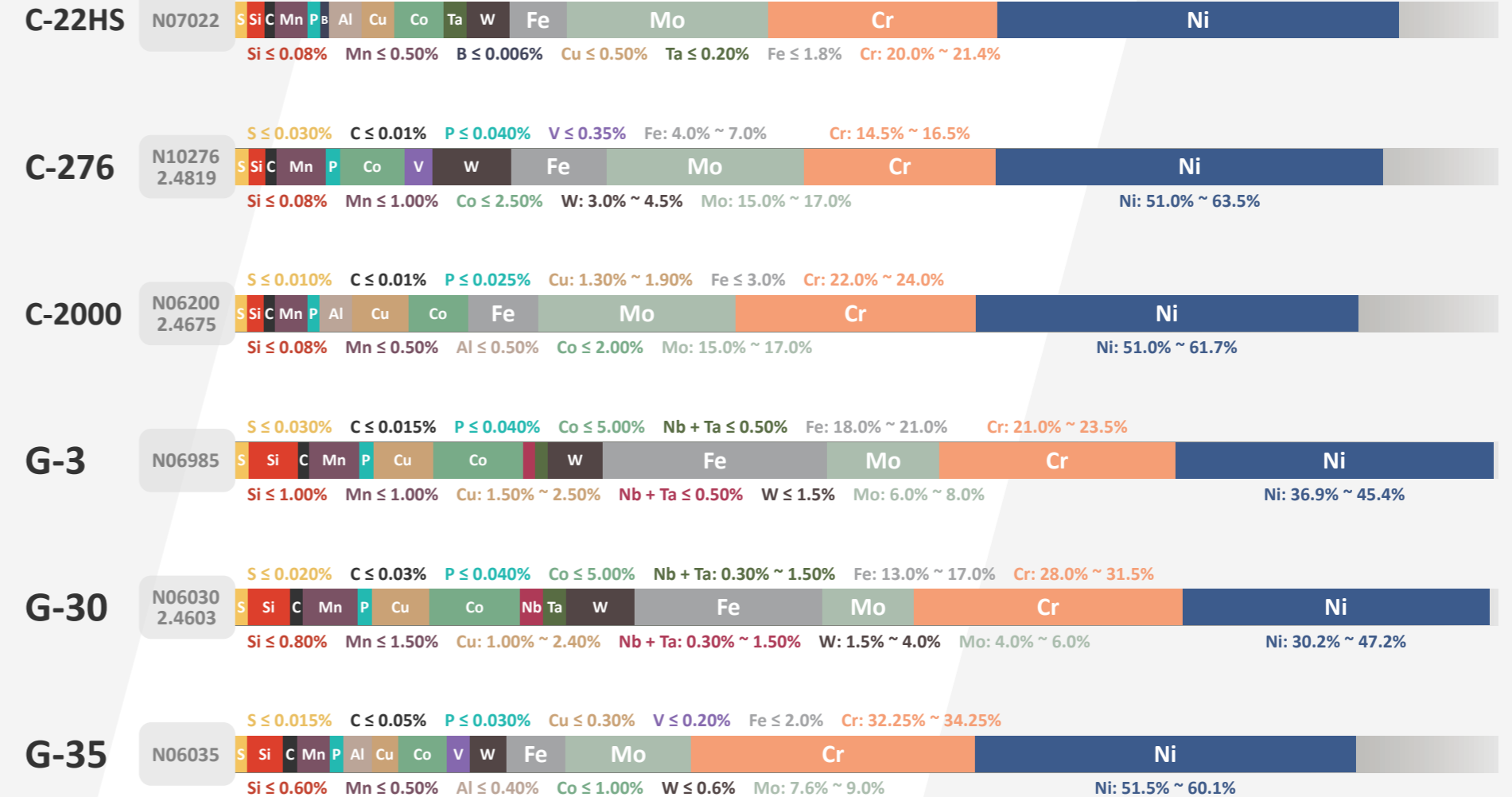
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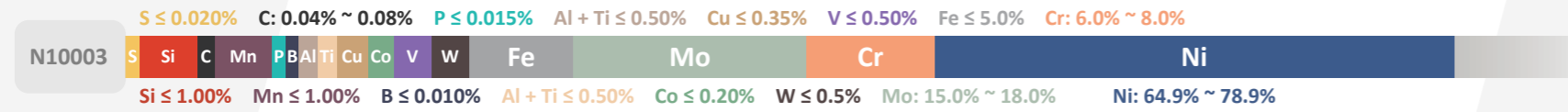


# HASTELLOY

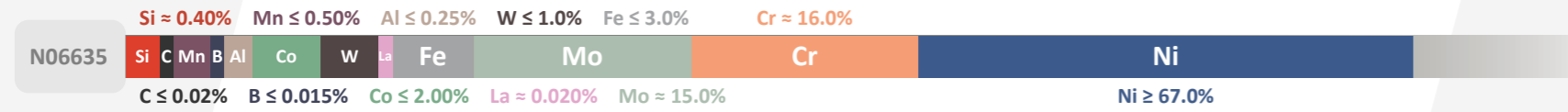


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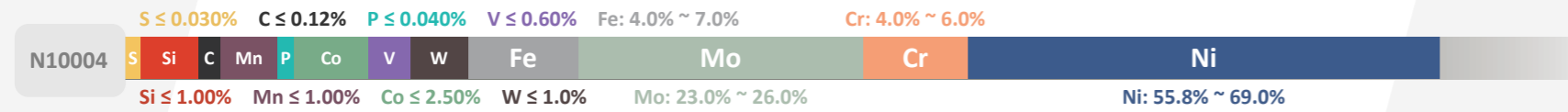
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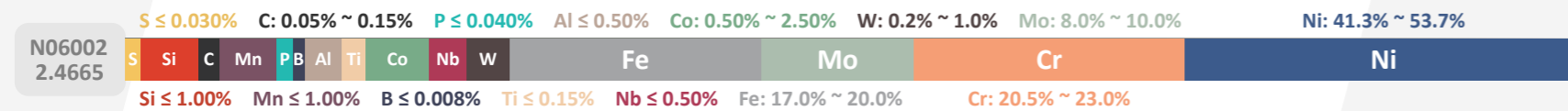
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Rahul Ferrometal



