Multimet N155 Datasheet

Multimet N155 provides high strength and resistance to thermal creep and oxidation in extreme temperature environments.

Alloy / Grade	Multimet N155
Common Forms	Sheet, Plate, Bar, Wire, Forging Billet.
Key Feature	High creep/rupture strength up to 1500 deg F (815 deg C).
Service Focus	Provides excellent creep and stress-rupture properties, maintaining structural integrity in hot exhaust gas streams.

1. Product Overview

Multimet N155 is a solid-solution strengthened superalloy containing relatively high amounts of iron, chromium, nickel, and cobalt, further strengthened by molybdenum, tungsten, and niobium. It is designed to provide high strength at high temperatures combined with excellent oxidation resistance.

Grade	Core Description	Typical Service Focus
Multimet N155	Multimet N155 is a solid-solution strengthened superalloy containing relatively high amounts of iron, chromium,...	N155 is often referred to as a "kitchen sink" alloy because of its complex chemistry. This rich blend of...
Supply Capability	Sheet, Plate, Bar, Wire, Forging Billet.	Standard mill forms, cut-to-size material and project supply
Technical Review	Confirm final values by product form, heat treatment and material certificate	Provides excellent creep and stress-rupture properties, maintaining structural integrity in hot exhaust gas...

2. Key Features

- N155 is often referred to as a "kitchen sink" alloy because of its complex chemistry. This rich blend of elements allows it to perform in a...
- Provides excellent creep and stress-rupture properties, maintaining structural integrity in hot exhaust gas streams.
- Forms a stable oxide scale that resists spalling during repeated heating and cooling cycles, useful for engine afterburners.
- Unlike many gamma-prime strengthened alloys (like Waspaloy), N155 is ductile and can be stamped, formed, and welded with standard techniques.

Further information under:	https://www.nickelcasting.com/nickel-alloys/multimet-n155/
Home page:	www.nickelcasting.com
Email:	ni@Nickelcasting.com

Technical Data

The following values are provided as general reference data for engineering review and procurement planning. Confirm final values against the applicable specification, product form, heat treatment condition and material certificate.

3. Chemical Composition (%)

Element	Content (%)
Iron (Fe)	Balance
Chromium (Cr)	20.0 - 22.5
Nickel (Ni)	19.0 - 21.0
Cobalt (Co)	18.5 - 21.0
Molybdenum (Mo)	2.5 - 3.5
Tungsten (W)	2.0 - 3.0
Niobium (Nb)	0.75 - 1.25

4. Standard Specifications

Product Form	Standards (AMS / ASTM)
Sheet, Strip, Plate	AMS 5532
Bar, Forgings, Rings	AMS 5769, AMS 5768
Welding Wire	AMS 5794
Tubing	AMS 5585

5. Mechanical Properties - Typical at Room Temperature

Property	Typical Values (Room Temp)
Tensile Strength	115 - 135 ksi (790 - 930 MPa)
Yield Strength (0.2% Offset)	55 - 75 ksi (380 - 515 MPa)
Elongation	30 - 50 %
Hardness (Rockwell B)	90 - 98 HRB

Note: Values are typical or specification reference values. Purchase requirements should be confirmed against the required standard, drawing and material test report.

Applications and Ordering Information

Use this section to define inquiry requirements and accelerate technical confirmation for Multimet N155 products.

6. Typical Applications

Industry / Area	Typical Components
Industrial Service	Tailpipes, exhaust manifolds, and collector rings on reciprocating and jet engines.
Chemical / Process Equipment	Buckets and blades in land-based gas turbines where temperatures are moderate but stress is high.
Oil, Gas & Marine	Flame holders and combustion liners requiring oxidation resistance.
High-Temperature / Power	High-temperature bolts and fasteners used in furnaces and kilns.
Precision Components	We supply Multimet N155 (UNS R30155) in sheet, bar, and billet forms. Certified to Aerospace Material Specifications (AMS).

7. Available Supply Forms

Pipe & Tube	Plate & Sheet	Bar & Rod
Pipe Fittings	Flanges	Wire & Strip
Forgings	Custom Cutting	Project Supply

8. Information to Include When Requesting a Quote

- Required grade: Multimet N155, with ASTM / ASME / AMS specification if applicable.
- Product form: pipe, tube, plate, sheet, bar, fittings, flanges, forgings or machined parts.
- Dimensions: outside diameter, wall thickness, length, width, thickness or drawing number.
- Quantity, delivery destination and required delivery schedule.
- Special requirements: cutting, machining, heat treatment, NDT, PMI, test report or material certificate.

Company Information	
Address	Shanghai, China
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Home Page	www.nickelcasting.com
Product Page	https://www.nickelcasting.com/nickel-alloys/multimet-n155/

Disclaimer

This datasheet is provided for general reference only. Actual values may vary by product form, heat treatment, manufacturing condition and applicable specification. Please contact us for confirmed specifications, test reports and material certificates before ordering.