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# Astrolite<sup>®</sup> Réne41

Astrolite 5800

### Product Description:

Astrolite<sup>®</sup> Réne41 (also known as Réne41, R41) is a nickel-based precipitation-hardening type alloy. Strength is developed by various solution annealing and aging heat treatments. Due to its high strength and good oxidation resistance, the alloy is being used in jet engine hot components, missile components, springs, afterburner parts and nozzle diaphragm partitions in gas turbine engines.

Réne41alloy is now being replaced in many applications by Alloy 282<sup>®</sup>, due to the better fabricability of Alloy 282<sup>®</sup>.

Astrolite<sup>®</sup> UltraGrade<sup>™</sup> surface finish on the spooled wire promotes smooth feeding through welding equipment which may result in reduced tip wear in contact tips.

Astrolite<sup>®</sup> UltraGrade<sup>™</sup> wire cleaning processes insure very clean wire surface for reliable welding performance.

#### Specifications:

AMS 5800, MSRR9500/241, UNS N07041

#### Nominal Composition (% by weight) & Mechanical properties:

Nickel	52 (Balance)
Chromium	18 - 20
Cobalt	10 - 12
Molybdenum	9 – 10.5
Iron	5 max
Titanium	3 – 3.3
Aluminum	1.4 - 1.6
Other interstitials	Not reported

	Tensile (ksi)	181
D	ensity (LBs/Cubic inch)	0.298

Need pricing?

#### Available Product Forms and Sizes, Packaging & Identification:

Straight Lengths	Spooled
AMS-2813 – Standard packaging	Precision layer wound, with controlled cast and helix
AMS-2814 – Premium packaging available upon request	AMS-2813 – standard packaging
Vapor barrier packaging available upon request.	AMS-2814 – Premium, vapor barrier packaging available
1 LB and 5 LB bags available.	upon request.
36" (914 mm) – Standard length. Other lengths available	12" – Standard spool diameter
on request.	Other spool diameters; 4" & 8" diameter spools available
Flag tagged on one end per AMS-2816. Tagging of both	on request.
ends available upon request.	
Color coding to AMS-2819 or customer-specific	
specification is available upon request.	
Diameters: 0.020", 0.025", 0.030", 0.035", 0.040", 0.045",	Upon request special diameters and shapes may be
0.062", 0.078", 0.093", 0.125"	available.

## **DFARS Compliant**

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