

Features

- **High Tensile Strength:** Typically ranges from 190 to 480 MPa (28–70 ksi) depending on the specific heat treatment.
- It is unusually hard for an aluminium alloy, often measuring between 130 and 145 HB on the Brinell scale in the T6 condition.
- The material has a density of approximately 2.80 g/cm³ (0.101 lb/in³), which is roughly one-third the weight of steel while providing comparable strength in certain grades.
- It exhibits high fatigue strength and toughness, essential for components subject to cyclic loading, such as landing gears.
- **Heat-Treatable:** Its mechanical properties are significantly enhanced through precipitation hardening and aging processes.
- Known for being exceptionally easy to machine into complex, high-precision shapes in certain tempers

RS PRO 2014 Aluminium Round Bar, L: 305MM X DIA: 5.1/2IN

RS Stock No: 0794133



RS PRO is the own brand of RS. The RS PRO Seal of Approval is your assurance of professional quality, a guarantee that every part is rigorously tested, inspected, and audited against demanding standards. Making RS PRO the Smart Choice for our customers.

Product Description

RS PRO 2014 Aluminium Round Bar

RS PRO offers a range of 2014 aluminium round bars, they are a high-strength, copper-based "duralumin" material. It is the second most popular alloy in the 2000-series, following 2024, and is primarily prized for its exceptional mechanical performance in demanding environments.

Key Features:

- *It is one of the strongest aluminium alloys available, featuring high hardness and a superior strength-to-weight ratio*
- *It is generally not recommended for welding because it is highly sensitive to cracking during the process.*
- *Offers excellent resistance to fatigue, making it reliable for parts under constant stress.*
- *Heat-Treatable: Its mechanical properties are significantly enhanced through precipitation hardening and aging processes.*
- *Due to its high copper content, it is susceptible to atmospheric corrosion and typically requires a protective coating, painting, or cladding with pure aluminium.*

Applications:

- *Aerospace: Aircraft structural components, fuselage frames, wing spars, and landing gear.*
- *Defence: Military vehicles, weaponry, and structural armour reinforcements.*
- *High-Performance Automotive: Racing suspension components, connecting rods, and forged wheels.*
- *Heavy Engineering: Hydraulic cylinders, high-stress fasteners, and heavy-duty forgings.*

General Specifications

Material	Aluminium
Grade	2014
Form	Round Bar
Length	305MM

Aluminium Bars



Rod Diameter	5.1/2IN
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Mechanical Specifications

Density	2.80g/cm³
Tensile Strength	190 – 480 MPa (depending on temper)
Melting Point	~535°C (995°F)
Thermal Conductivity	138 W/m·K
Modulus of Elasticity	71–73 GPa
Hardness	~110 HB (Brinell)

Similar Products

RS Code	Diameter	Length
0794134	3"	1000MM
0794135	5"	305MM
0794136	4 1/2"	610MM
0794138	1.1/4"	1000MM
0794139	3.1/2"	1000MM