

Features

- **High Strength:** One of the strongest aluminium alloys available, specifically valued for structural integrity under heavy loads. Typical ultimate tensile strength for T3/T351 tempers is around 470–483 MPa.
- **Superior Fatigue Resistance:** Unlike many other high-strength alloys, 2024 is specifically chosen for applications subjected to **cyclic loading** and constant tension, such as aircraft wing structures.
- **Good Machinability:** Despite its high strength, it can be machined to a very high finish. It is frequently used for precision fittings and machined components. Limited
- **Weldability:** Fusion welding (arc or gas) is generally not recommended due to solidification defects. Resistance welding methods, such as spot or seam welding, are feasible alternatives

RS PRO 2024 Aluminium Sheet, L:300MM X W:500MM X T:30MM

RS Stock No: 0783473



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 2024 Aluminium Sheet

The RS PRO 2024 Aluminium Sheet is a high-strength, aerospace-grade material widely recognized for its superior strength-to-weight ratio and exceptional fatigue resistance. The defining characteristics of this alloy revolve around its high mechanical strength, which makes it suitable for aerospace applications, balanced by some limitations in other areas.

Key Features:

- While formable in the annealed condition (O temper), in the high-strength T3/T351 tempers, it has limited cold formability, requiring larger bend radii.*
- RS PRO 2024 Aluminium Sheet can be cut and extruded, producing a high finish.*
- The primary limitation is its poor resistance to atmospheric and galvanic corrosion due to the high copper content.*
- Offers excellent toughness even at moderately high strength levels, making it stable under high-stress conditions.*

Applications:

- Aircraft Structures: Wing tension members, fuselage structures, and bulkheads.*
- Military Equipment: Structural components for various defence applications.*
- Automotive/Transport: Lorry wheels, gears, pistons, and cylinders.*
- Industrial Engineering: High-strength shafts and precision machined components.*

General Specifications

Material	Aluminium 2024
Form	Sheet
Length	300MM
Width	500MM
Thickness	30MM

Mechanical Specifications

Density	2.77 g
Modulus of Elasticity	73.1 GPa
Sheer Strength & Modulus	283 MPa
Brinell Hardness (HB)	120
Tensile Strength	393 MPa to 483 MPa
Thermal Conductivity	121 W/m·K

Approvals

Compliance/Certifications	Manufactured to meet standards such as ASTM B209, AMS-QQ-A-250/4, and AMS4037.
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Similar Products

RS Code	Grade	Thickness
0783470	2024	1IN
0783471	2024	2.5IN
0783472	2024	3/4IN
0783475	2024	2.3/4IN
0783476	2024	1.1/4IN
0783477	2024	1.1/2IN