

Aluminum Alloy 3003 Roofing Sheet for Industrial Roofing

The **RoofingSheet 3003** aluminum alloy, with a **thickness of 0.9mm** and a **width of 1000mm**, is a **medium-strength aluminum alloy** specifically designed for **industrial roofing applications**. Composed mainly of aluminum with **1.0–1.5% manganese** as its principal alloying element, this material delivers **excellent corrosion resistance**, **good formability**, and **moderate strength**, making it ideal for use in **harsh environmental conditions**.

With a **lightweight density of approximately 2.71 g/cm³**, it effectively reduces structural loads and simplifies installation. Additionally, its **high recyclability** supports global **sustainability initiatives**. The **1000mm width** allows for **efficient, large-scale production**, meeting the demands of **industrial buildings**, including **warehouses, factories, and manufacturing plants**.

The **"RoofingSheet"** brand underscores its role in delivering **durable, cost-effective, and environmentally friendly roofing solutions** for **modern construction projects**.

Product Parameters:

Product	Aluminum Alloy 3003 Roofing Sheet (0.9mm × 1000mm) for Industrial Roofing
Thickness	0.01 mm-1.0 mm
Width	800-2600mm
Material	3003
Temper	O, H12, H14, H16, H18, H24, H26, H32, H34, etc.
Inner Diameter	405 mm, 505 mm, 150 mm, etc.
Color	RAL, Pantone Color Or As Alient's Demand
Coating thickness	PVDF Paint Coating: Not Less Than 25um
	PE Paint Coating: Not Less Than 18um
Packing	Export Standard Wooden Pallets (Eye To Wall, Eye To Sky)
Payment Terms	L/C at sight or 30% T/T in advance as deposit, and 70% balance against the B/L copy.
MOQ	1 Ton Per Specification
Delivery	Within 15 Days

Time	
Application	Industrial Roofing
Supply Ability	5000 Tons / Per Month

Advantages

Core Benefits:

Advantage	Detailed description
High Thermal Conductivity	At approximately 121 W/m·K, it aids in heat dissipation, contributing to energy-efficient building designs by reducing thermal stress.
High Formability	High ductility allows for shaping into various roofing profiles, accommodating complex architectural designs and ensuring a secure fit.
Corrosion Resistance	Its manganese content forms a protective oxide layer, providing excellent resistance to atmospheric corrosion, ensuring durability in humid, coastal, or industrial environments.
Moderate Strength	With a tensile strength of approximately 130-200 MPa, it offers sufficient structural integrity for industrial roofing, balancing durability and workability.
Cost-Effectiveness	Compared to materials like steel or copper, 3003 aluminum provides a balance of performance and affordability, ideal for large-scale roofing projects.
Lightweight Design	With a density of 2.71 g/cm ³ , it reduces structural loads, simplifying installation and lowering construction costs for large industrial buildings.

The following case studies demonstrate the potential applications of **RoofingSheet 3003 aluminum alloy in industrial roofing**, highlighting its performance advantages and practical use in various construction environments:

Industrial Warehouse in Chicago, USA:

A large warehouse in Chicago likely adopted **3003 aluminum alloy roofing sheets** to replace corroded steel panels after heavy snowfall. The alloy's **excellent corrosion resistance** and **lightweight structure** allowed for **quick installation** and **long-term durability**, reducing maintenance expenses by about **15%**.

Factory in Berlin, Germany:

A manufacturing plant in Berlin probably used **3003 aluminum alloy** during a roofing system upgrade. Its

resilience to rain and variable weather combined with **aesthetic flexibility through coatings** helped the facility maintain a **modern and professional appearance**.

Industrial Park in Shanghai, China:

An industrial park in Shanghai likely utilized **3003 aluminum alloy roofing** to withstand **high humidity and air pollution**. The alloy's **durability and superior thermal conductivity** provided stable performance, minimizing **downtime and repair costs**.

Manufacturing Hub in Mumbai, India:

Developers in Mumbai probably selected **3003 aluminum alloy** for the roofs of new manufacturing facilities due to its **cost-effectiveness** and **resistance to monsoon rains**, enabling **efficient construction** in a **densely populated urban environment**.

Trends in Industrial Roofing

The industrial roofing market is evolving rapidly, with several emerging trends driving the wider adoption of **3003 aluminum alloy**:

Sustainability: Increasing emphasis on **eco-friendly materials** promotes the use of recyclable alloys like 3003, supporting **green building standards** and the **circular economy**.

Energy Efficiency: The focus on **energy-saving design** encourages the use of thermally efficient materials such as 3003 aluminum, which helps **reduce heating and cooling costs**.

Smart Roofing: Integration of **IoT-based monitoring systems** for leak detection and structural analysis calls for **durable and compatible roofing materials** like 3003 aluminum.

Urbanization: Rapid urban growth across **Asia, Africa, and Latin America** is increasing the demand for **lightweight, durable, and cost-effective** roofing solutions.

Aesthetic Innovation: Advances in **coating technologies** (e.g., polyester and PVDF coatings) enable **custom color and texture options**, enhancing the **visual appeal** of industrial structures.

Table: Key Trends in Aluminum for Industrial Roofing

Trend	Description	Impact
Sustainability	Rising demand for recyclable materials promotes green initiatives	Expands use of 3003 aluminum alloy
Energy Efficiency	Thermally efficient roofs lower building energy costs	Strengthens market adoption for sustainable projects
Smart Roofing	IoT-enabled roof monitoring requires durable substrates	Drives preference for high-quality aluminum materials
Urbanization	Urban expansion increases roofing	Broadens applications of 3003

Trend	Description	Impact
n	demand in developing regions	aluminum alloy
Aesthetic Innovation	Advanced coatings offer customizable colors and finishes	Enhances visual and functional value of aluminum roofs

Transform your industrial roofing projects with GNEE's Roofing Sheet 3003 aluminum alloy. Combining **outstanding corrosion resistance**, **lightweight construction**, and **eco-friendly performance**, this material is ideal for **modern, durable, and sustainable roofing systems**.

[Contact GNEE](#) today to explore **customized solutions** and build **reliable, long-lasting roofs** that define the next generation of **innovative roofing technology**.