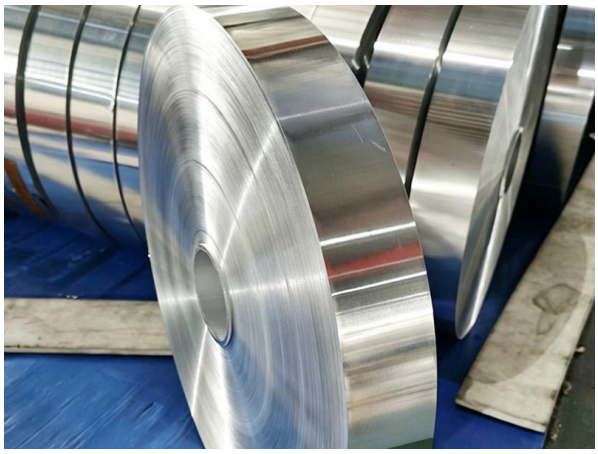
1070 Aluminum Strip for Transformer Winding



1070 aluminum strip is a high-purity aluminum material commonly used for transformer winding and other electrical conductor applications. Compared with general aluminum strip, 1070 aluminum strip offers higher aluminum content and excellent electrical conductivity, making it suitable for dry-type transformers, oil-immersed transformers, distribution transformers and power transformer coils.

For transformer winding applications, 1070 aluminum strip is usually supplied in O temper / soft temper. The material has good flexibility and formability, which helps improve winding efficiency and reduce the risk of cracking, edge damage or deformation during coil production.

Our 1070 aluminum strip for transformer winding is manufactured with controlled rolling, annealing and precision slitting processes. We can provide customized thickness, width, coil inner diameter, edge condition and packaging according to customer requirements.

Product Specifications

Product Name	1070 Aluminum Strip for Transformer Winding
Alloy	1070
Temper	O / Soft
Thickness	0.20 – 3.00 mm
Width	10 – 300 mm
Inner Diameter	150 mm / 300 mm / 400 mm / 500 mm or customized
Outer Diameter	According to coil size and customer requirement
Surface	Smooth, clean, free from obvious scratch, oil stain and oxidation
Edge Condition	Slit edge / deburred edge / round edge

Coil Weight	Customized according to order requirement
Standard	According to applicable standard or technical agreement
Packaging	Export-standard wooden pallet or wooden case
MOQ	2 Tons

Typical Chemical Composition of 1070 Aluminum Strip

Alloy	Al (%) Min	Si (%) Max	Fe (%) Max	Cu (%) Max	Mn (%) Max	Mg (%) Max	Zn (%) Max	Ti (%) Max	Others Max
1070	99.70	0.20	0.25	0.04	0.03	0.03	0.04	0.03	0.03 each / 0.10 total

Note: Chemical composition is for reference only. Final composition can be supplied according to applicable standard and customer technical requirements.

Typical Mechanical Properties

Alloy	Temper	Tensile Strength	Elongation
1070	O	60 – 100 MPa	≥ 25%

Note: Mechanical properties may vary depending on thickness, width, annealing condition and production process.

Electrical Conductivity

Alloy	Temper	Conductivity
1070	O / Soft	≥ 62.0% IACS

Note: Conductivity values are reference data. Specific electrical performance can be tested and supplied according to customer requirements.

Thickness and Width Tolerance

Thickness Range	Thickness Tolerance	Width Range	Width Tolerance
0.20 – 0.50 mm	±0.01 / ±0.02 mm	＜100mm	±0.10
0.50 – 1.00 mm	±0.02 mm	100-200mm	±0.15

Thickness Range	Thickness Tolerance	Width Range	Width Tolerance
1.00 – 2.00 mm	±0.03 mm	201-500mm	±0.20
2.00 – 3.00 mm	±0.04 mm	501-1250mm	±1

Note: Tolerance can be adjusted according to actual product size, production capability and customer technical agreement.

Edge Quality Requirements

For transformer winding, edge quality is very important because burrs or sharp edges may damage insulation materials during winding. We control the slitting and edge treatment process to ensure stable winding performance.

Item	Requirement
Burr Height	≤ 0.03 mm
Edge Collapse	≤ 0.05 mm
Edge Condition	Smooth and neat
Optional Edge	Deburred edge / round edge
Surface Requirement	Clean surface without obvious scratch or contamination

Note: Special edge requirements can be discussed according to transformer winding process and customer drawings.

Typical Applications

1070 aluminum strip for transformer winding is widely used in:
Transformer winding
Dry-type transformer coils
Oil-immersed transformer coils
Distribution transformers
Power transformers
Electrical conductor components
Aluminum winding material for electrical equipment
Reactor and electrical coil applications

Why Use 1070 Aluminum Strip for Transformer Winding?

1070 aluminum strip has higher aluminum purity than 1050 and 1060 aluminum strip. Because of this, it provides excellent electrical conductivity and good processing performance. It is a suitable

choice for transformer manufacturers who require stable conductor performance and reliable coil winding quality.

Main Advantages

Higher aluminum purity
Excellent conductivity for transformer applications
Good softness after annealing
Easy to wind and process
Reduced risk of cracking during winding
Good surface and edge quality
Suitable for customized transformer coil design

1070 Aluminum Strip vs 1060 Aluminum Strip

Item	1060 Aluminum Strip	1070 Aluminum Strip
Aluminum Content	≥ 99.60%	≥ 99.70%
Conductivity	Good	Higher
Ductility	Good	Excellent
Application	General transformer winding	Transformer winding requiring higher conductivity
Cost	Relatively lower	Slightly higher depending on market

Both 1060 and 1070 aluminum strips can be used for transformer winding. If the customer requires higher conductivity and higher aluminum purity, 1070 aluminum strip is often a better option.

Production Process

Our 1070 aluminum strip for transformer winding is produced through a controlled manufacturing process to ensure stable conductivity, accurate dimensions, soft temper and smooth surface quality.

Production Flow:

Raw Material Inspection → Rolling → Annealing → Precision Slitting → Edge Inspection → Conductivity Testing → Rewinding → Packaging

Quality Control

To meet transformer winding requirements, we carry out strict quality inspection during production and before shipment.

Quality Inspection Items

Chemical composition inspection
Thickness tolerance inspection
Width tolerance inspection
Surface quality inspection
Edge burr inspection
Edge collapse inspection
Conductivity testing
Tensile strength and elongation testing
Coil appearance inspection
Packaging inspection before shipment

Our quality control process helps ensure that every coil of 1070 aluminum strip has stable performance and reliable winding quality.

Surface Quality

1070 aluminum strip for transformer winding should have a smooth and clean surface. The surface should be free from obvious scratches, dents, oil stains, oxidation marks and other defects that may affect winding or insulation performance.

Surface Requirements
Smooth surface finish
Clean and bright appearance
No obvious scratch
No serious oxidation
No oil stain or contamination
Suitable for insulation paper or film wrapping during transformer winding

Packaging

Proper packaging is important to protect the aluminum strip during transportation and storage.

Packaging Options

Eye to wall / eye to sky packaging available
Moisture-proof film wrapping
Anti-rust and anti-moisture protection
Wooden pallet packaging
Wooden case packaging
Export-standard seaworthy packaging
Customized packaging available

Each coil can be packed according to customer requirements, including coil inner diameter, coil weight, label information and shipping marks.