Copper Strip for Transformer Winding

Copper strip for transformer winding is an important conductor material used in transformer coil manufacturing. Compared with aluminum strip, copper strip provides higher electrical conductivity, better current-carrying capacity and excellent mechanical strength, making it suitable for transformers requiring stable electrical performance and high reliability.

Our copper strip for transformer winding is supplied with accurate thickness, precise width tolerance, clean surface and controlled edge quality. Soft annealed copper strip is commonly used for winding applications because it provides good flexibility and reduces the risk of cracking during bending and coil forming.

We can supply customized copper strip according to customer requirements, including material grade, thickness, width, temper, coil inner diameter, edge condition and packaging method.

Specifications of Copper Strip for Transformer

Product Name	Copper Strip for Transformer Winding
Material	T2 / C1100 / C11000 / customized
Temper	O / Soft / Annealed / Half Hard
Thickness	0.05 – 3.00 mm or customized
Width	10 – 500 mm or customized
Conductivity	High conductivity, according to material grade
Surface	Smooth, clean, bright
Edge Condition	Slit edge / deburred edge / round edge
Inner Diameter	150 mm / 300 mm / 400 mm / 500 mm or customized
Coil Weight	According to customer requirement
Application	Transformer winding, transformer coil, electrical conductor

Web: https://www.transformer-strip.com
Phone:(+)86 18137889531 **Email:nydia@aluminumhm.com**

Packaging	Wooden pallet / wooden case / export package

Available Copper Grades

We can supply different copper grades for transformer winding applications according to customer requirements.

Copper Grade	Description	Typical Application
T2 Copper	Common high-purity copper grade with good conductivity and formability	Transformer winding, electrical conductor
C1100 / C11000	High conductivity electrolytic tough pitch copper	Transformer coils, electrical components
ETP Copper	Excellent electrical conductivity and good processing performance	Electrical winding and conductor parts
Customized Grade	Available according to customer technical specification	Special transformer applications

Conductivity:

Copper strip for transformer winding is required to have high and stable electrical conductivity. High conductivity helps reduce power loss, improve current-carrying capacity and support reliable transformer operation.

Copper Grade	Typical Conductivity	Approx. Conductivity Value	Approx. Resistivity at 20°C
T2 Copper	≥97% IACS	≥56 MS/m	≤0.0178 Ω·mm²/m
C1100 Copper	≥100% IACS	≥58 MS/m	≤0.01724 Ω·mm²/m
C11000 Copper	≥100% IACS	≥58 MS/m	≤0.01724 Ω·mm²/m
ETP Copper	≥100% IACS	≥58 MS/m	≤0.01724 Ω·mm²/m

Main Features of Copper Strip for Transformer

High electrical conductivity
Excellent current-carrying capacity
Good ductility and formability

Suitable for transformer coil winding
Smooth and clean surface
Accurate thickness and width tolerance
Low burr edge for insulation protection
Soft annealed temper available
Custom sizes and coil weights available
Suitable for dry-type and oil-immersed transformers

Why Copper Strip Is Used for Transformer Winding?

Copper strip is widely used in transformer winding because it provides excellent electrical and mechanical performance. Its high conductivity helps reduce electrical loss and improve transformer efficiency. In addition, copper strip has good mechanical strength and can maintain stable performance during winding, insulation wrapping and long-term operation.
For transformer manufacturers, the quality of copper strip directly affects winding efficiency, insulation safety and transformer reliability. Therefore, the copper strip should have stable dimensions, smooth surface, controlled hardness and clean edges.

Key Quality Requirements for Transformer Copper Strip

For transformer winding applications, copper strip should meet strict quality requirements.

Quality Item	Requirement
Conductivity	Stable and suitable for electrical conductor use
Surface Quality	Smooth, clean, no serious scratch, oil stain or oxidation
Edge Quality	Low burr, smooth edge, deburred or round edge if required
Thickness Tolerance	Accurate and stable
Width Tolerance	Precise slitting width
Temper	Soft or annealed condition for winding applications
Coil Shape	Neat coil, no serious wave or deformation
Packaging	Moisture-proof and anti-oxidation protection

Applications of Copper Strip for Transformer

Copper strip for transformer winding is commonly used in:
Transformer winding
Transformer coil manufacturing
Dry-type transformers
Oil-immersed transformers
Distribution transformers
Power transformers
Electrical reactors
Electrical conductor components
High-performance electrical equipment

Copper Strip vs Aluminum Strip for Transformer Winding

Item	Copper Strip	Aluminum Strip
Conductivity	Higher	Lower than copper
Weight	Heavier	Lighter
Mechanical Strength	Higher	Moderate
Cost	Higher	Lower
Application	High-performance transformer winding	Cost-sensitive and lightweight transformer winding

Production Process

Typical production process for transformer winding copper strip:
Raw Material Inspection → Rolling → Annealing → Precision Slitting → Edge Treatment → Surface Inspection → Rewinding → Final Inspection → Packaging
Each process is controlled to ensure stable size, good winding performance and reliable product quality.

Quality Control

Key inspection items include:

Material grade inspection
Thickness tolerance inspection
Width tolerance inspection
Surface quality inspection
Edge burr inspection
Conductivity testing
Tensile strength testing
Elongation testing
Coil appearance inspection
Packaging inspection

Packaging

Copper strip is packed with moisture-proof and export-standard packaging to avoid oxidation, deformation and surface damage during transportation.
Packaging options:
Plastic film wrapping
Anti-rust paper protection
Wooden pallet
Wooden case
Export seaworthy packaging
Customized label and shipping mark