Copper Strip for Transformer

About us

Haomei is a professional manufacturer and supplier specializing in the R&D, production and sales of aluminum transformer strip, copper strip roll for transformer, cable armored aluminum and copper strip. With years of experience in the metal processing industry, we have built a complete production system and made our way in the fierce market competition.

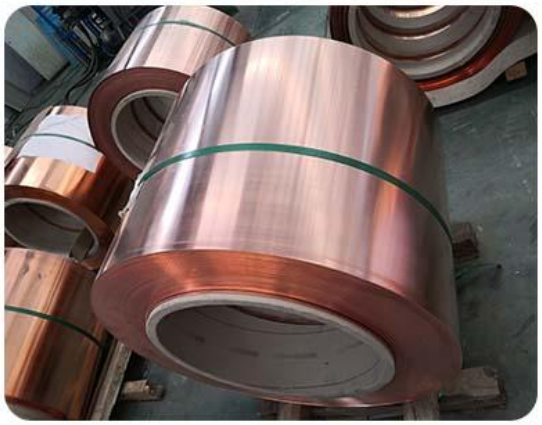


Why copper strip is for transformer

Copper strip is widely used in transformer winding because its comprehensive performance meets the core requirements of the winding: excellent conductivity can

significantly reduce copper losses and improve energy efficiency; excellent mechanical properties can ensure the stability of the winding structure, resist deformation and creep; strong heat resistance can extend the service life of the equipment; and it has good adaptability and is easy to process.

It can be compatible with the insulation system and meet the needs of transformers of different specifications. Its high reliability can also be adapted to harsh environments, making it the preferred material for transformer winding.



Specification

Alloy	Thickness(mm)	Width(mm)	Technique Standard
T2 M	0.5-2.0	100-1000	GB/T18813-2014

Chemical composition

Size (MM)	Weight (KGS)	Cu	Pb	Fe	Bi	S	As	Sb
1.2446*440	904.0	99.990	0.0010	0.0020	<0.0003	0.0011	<0.0003	<0.0002
1.2446*500	977.0	99.990	0.0010	0.0023	<0.0003	0.0009	<0.0003	<0.0002
1.2446*570	3044.0	99.990	0.0010	0.0023	<0.0003	0.0009	<0.0003	<0.0002
0.7112*485	648.0	99.990	0.0009	0.0022	<0.0003	0.001	<0.0003	<0.0002

Copper strip properties

Size (MM)	Weight (KGS)	Tensile Strength (Mpa)	Hardness (Hv)
1.2446*440	904.0	235	57.0
1.2446*500	977.0	235	57.0
1.2446*570	3044.0	235	58.0
0.7112*485	648.0	231	55.0

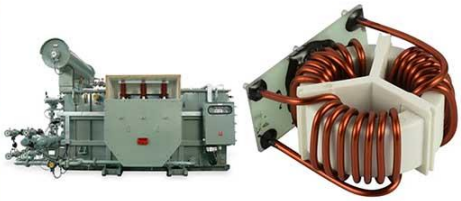
Uses

- Dry-type transformer
- Oil-immersed transformers
- Step-up station transformers
- Box-type substations
- On-board charger transformers for new energy vehicles
- Traction transformers for rail









transit

- High-frequency transformers for UPS power supplies in data centers
- Metallurgical electric furnace transformers
- Toroidal transformers

Pros and cons of copper strip in transformer over aluminum strip

1. Advantages

- **Excellent conductivity**: Conductivity is much higher than aluminum, resistance is low, significantly reducing copper losses and improving energy efficiency, suitable for medium-to-high power and ultra-high voltage transformers.
- **Good mechanical properties**: Strong ductility, tensile strength, and creep resistance, not easily damaged during winding, and able to maintain winding structure stability for a long time.
- **Excellent heat resistance**: Not easily softened or deformed at high temperatures, performance degradation is small, and the service life of the transformer can be extended.
- **High reliability**: Low impurity content and good corrosion resistance, after treatment, it can be adapted to harsh environments and meet the requirements of high-end transformers.
- **Strong adaptability**: Good compatibility with insulation materials, can be made into ultra-thin specifications, and is easy to process.

2. Disadvantages

- **High cost:** The price of copper is much higher than that of aluminum, increasing the manufacturing cost of transformers and limiting its application in low-cost civilian transformers.

- **High density**: The weight is about 3 times that of aluminum, causing inconvenience for transportation and installation.

- **Slightly higher processing difficulty**: The hardness is higher than aluminum strip, making complex winding, maintenance, and disassembly slightly more difficult.

Contact us

You can get us through the following ways:

Email: dolly@alumhm.com

Whatsapp:

+86-15978414719

Wechat: +86-15978414719