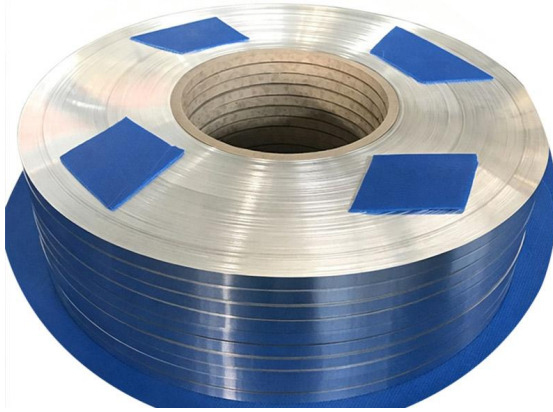


Interlocking Armored Cable Aluminum Strip



Interlocking armored cable aluminum strip is specially used for producing interlocked armor layers in armored cables. During cable manufacturing, the aluminum strip is continuously formed and interlocked around the cable core to provide mechanical protection, flexibility, impact resistance and corrosion resistance.

Compared with steel armor, aluminum interlocking armor offers lighter weight, better corrosion resistance and easier installation performance, making it widely used in power cables, control cables, instrumentation cables, industrial cables and metal-clad cable systems.

We supply aluminum strips in different alloys, tempers, thicknesses and widths according to customer cable design and production requirements. 3000 series and 5000 series aluminum alloys are commonly recommended for interlocking armored cable applications.

Specifications

Product Name	Interlocking Armored Cable Aluminum Strip
Alloy	3003, 3004, 5005, 5052, 5154, 5754
Temper	O, H12, H14, H16, H18, H22, H24, H32, H34
Thickness	0.20–1.50 mm or customized
Width	8–80 mm or customized
Inner Diameter	150 mm, 300 mm, 400 mm, 500 mm or customized
Surface	Smooth, clean, mill finish, oil-free
Edge	Slit edge, trimmed edge, burr-free edge
Coil Type	Narrow strip coil
Tolerance	According to customer requirements

Application	Interlocking armored cable, metal-clad cable, cable armoring
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Common thickness and width:

Common Thickness	Common Width
0.40 mm	10–20 mm
0.50 mm	12–25 mm
0.60 mm	15–30 mm
0.80 mm	18–35 mm
1.00 mm	20–50 mm

Note: Thickness and width can be customized according to cable size, armoring machine and cable design requirements.

Available Alloys

Alloy Series	Common Alloys	Main Features	Typical Application
3000 Series	3003, 3004	Moderate strength, good formability, good corrosion resistance	General interlocking armored cable
5000 Series	5005, 5052, 5154, 5754	Higher strength, excellent corrosion resistance, good mechanical stability	Industrial cables, marine cables, cables, heavy-duty armored cables

Recommended Aluminum Alloys

3003 Aluminum Strip

3003 aluminum strip provides good formability, moderate strength and corrosion resistance. It is suitable for general interlocking armored cable applications where balanced performance and cost efficiency are required.

5052 Aluminum Strip

5052 aluminum strip is one of the most commonly used 5000 series materials for cable armoring. It offers higher tensile strength, good bending performance and excellent corrosion resistance.

5154 Aluminum Strip

5154 aluminum strip provides higher strength than 5052 and good corrosion resistance. It is suitable for cable armoring applications requiring better mechanical protection and durability.

Mechanical Properties

Interlocking armored cable aluminum strip requires good tensile strength, proper yield strength and stable elongation to ensure smooth forming and interlocking during cable armoring production. Soft and semi-hard tempers provide good bending and forming performance, while harder tempers provide better mechanical protection and dimensional stability.

Alloy	Temper	Tensile Strength Rm	Yield Strength Rp0.2	Elongation A	Features
3003	O	95–130 MPa	35–65 MPa	18–30%	Good formability and moderate strength
3003	H14	140–180 MPa	115–160 MPa	3–10%	Stable strength for general cable applications
3003	H16	160–200 MPa	140–180 MPa	2–7%	Higher strength and good dimensional stability
5052	O	170–215 MPa	65–100 MPa	12–25%	Excellent formability and corrosion resistance
5052	H32	210–260 MPa	130–190 MPa	5–12%	Good balance of strength and formability
5052	H34	230–280 MPa	160–215 MPa	4–10%	Higher strength and stable interlocking performance
5154	O	220–270 MPa	85–125 MPa	14–25%	High ductility and good corrosion resistance
5154	H32	255–305 MPa	160–220 MPa	6–14%	Suitable for heavy-duty armored cable applications
5154	H34	280–330 MPa	190–250 MPa	5–12%	Higher strength for demanding applications

Why 5000 Series Aluminum for Interlocking Armored Cable?

5000 series aluminum alloys, such as 5052, 5154 and 5754, are widely used for interlocking armored cable applications because they provide better strength and corrosion resistance than pure aluminum alloys.

Advantages of 5000 Series Aluminum Strip

Higher tensile strength
Better corrosion resistance
Good bending and forming performance
Suitable for outdoor and industrial environments
Good resistance to cracking during interlocking forming
Better mechanical protection for cable cores
Suitable for marine cables, industrial cables and heavy-duty cables

Key Features

Good interlocking forming performance
Stable tensile strength and elongation
Excellent corrosion resistance
Smooth and clean surface
Burr-free edge for continuous cable production
Good bending performance without cracking
Accurate thickness and width tolerance
Suitable for high-speed armoring machines
3000 series and 5000 series alloys available
Custom thickness, width, coil ID and temper available

Applications

During cable production, the aluminum strip is formed into an interlocked armor layer around the cable core. This armor structure provides mechanical protection while maintaining cable flexibility. The interlocked aluminum armor helps protect cables from crushing, impact, abrasion and external mechanical damage.

Interlocking armored cable aluminum strip is widely used in:

Interlocking armored power cables
Metal-clad cables
MC cables
AC cables
Control cables
Instrumentation cables
Industrial cables
Building wires
Outdoor cables
Marine cables
Mining cables

Flexible armored cables
Heavy-duty cable protection systems

Quality Requirements

For interlocking armored cable aluminum strip, the following quality requirements are important:

- Uniform thickness
- Accurate width tolerance
- Smooth and clean surface
- No cracks
- No oxidation stains
- No oil contamination
- No wave edge
- No edge burrs
- Stable tensile strength
- Stable elongation
- Good coil winding quality
- Good forming performance during interlocking

Packaging and Delivery

Interlocking armored cable aluminum strip is usually supplied in narrow strip coils. Each coil can be packed with moisture-proof paper, plastic film, wooden pallet or wooden case according to export transportation requirements.

- Packaging Options
- Eye-to-sky coil packaging
- Eye-to-wall coil packaging
- Wooden pallet packaging
- Wooden case packaging
- Moisture-proof packaging
- Edge protection
- Export seaworthy packaging