

## Aluminium strip

We are providing our customer a wide range of Aluminium strip, which are manufactured from high grade quality raw materials. These Aluminium Slit Coils are widely known for its durability and quality. These Aluminium Slit Coils are available at industrial leading price. They are widely used in cable wrapping, aluminium plastic composite pipe, electrical transformer, radiators, flexible pipe, venetian blinds, lamp cap, making closures etc.

Alloy	Temper	Thickness(mm)	Width (mm)	Coil ID(mm)	Application
1100,1050, 1060,1070, 3003,3105, 3004,5052, 8011,	O,H12,H14 ,H16,H18	0.02~4.00	5~100	75, 150, 300, 400, 500	Cable,cosmetic cap, aluminum composite, pipe, aluminum hose or tube, electrical transformer, shutter,aluminum battery
8011,1235, 1060,1100,	O	0.10~0.20	100~300	75,150	Cable Wrapping
1060, 1100, 8011	O, H22	0.20~1.5	30~250	75	Aluminum plastic composite pipe
1060, 1070	O	0.20~2.0	100~1200	150, 300, 400, 500	Low voltage electrical transformer

8011	H18, H19	0.08~0.10	140~600	75,150	Water tank radiator in Automobile
8011	O	0.10~0.13	60	75	Aluminum tube for kitchen ventilator
5052, 3004	H19	0.125~0.25	15~100	300	Roller shutter
3004	O	0.25~0.40	85~400	75, 150	Aluminum lamp base

# 1. Aluminium strip for closures

A shiny end, in many shapes and colors. Aluminium has exactly the properties that closures need.

Dimensions			
Parameter	Range	Standard	Tolerance
Thickness (mm)	0.18 — 0.25	0.18, 0.20	+0.005/-0.005
Width (mm)	50 — 1250	813, 845, 833.8,835	+0.5, -0
Length (mm)	400 — 1000	655,706	+0.5, -0
Diagonal difference for sheet (mm)	1 max	-	-
Coil sizes (mm)	OD: 1450 max ID: 75,150,300, 508	-	-
Coil density (kg/mm)	3.5 max	-	-

Offer for thickness and width outside the range may be quoted on specific request

## Key features

- Aluminium is impermeable to light and gas, it can be easily formed and it combines well with other materials.

- We supply plain as well as lacquered strip and sheet made from alloyed aluminium in thicknesses ranging from 0.180 to 0.250 mm.
- This high quality material can be used in conjunction with a wide range of lacquering systems to create functional and well-styled solutions for the catering industry and for domestic purposes.

## **Custom design**

- The material can be used in conjunction with a wide range of colours to create well-designed, functional solutions to meet customers' style requirements.
- New surface appearances, designed to safeguard intactness and ensure high product recognition, are currently being evaluated.

## **Application areas**

- Screw caps for pressurized and unpressurized beverages, including carbonated soft drinks and spirits.
- Pharmaceutical caps for bottles and special applications.
- Dental cartridges.

# **2. Aluminium Strip for heat exchangers**

Well tempered

In our rolling mills, we produce strip and sheet for heat exchangers which overcome every challenge with ease – be it for heating, ventilation or refrigeration, or to keep mobility well tempered.

## **Key features**

- Good thermal and electrical conductor
- Corrosion resistant
- Lightweight and strong
- Numerous surface functions and treatments
- Good welding and adhesive bonding properties

- Recyclable

## Product details

Alloy	Temp er	Thick ness( mm)	Tolerance (mm)	Clad ratio( %)	Mechanical property			Application
					Tensile strength	Yield strength	Elong ation	
					$\sigma_b$ (MPa)	$\sigma_{p0.2}$ (Mpa)	$\delta$ (%) min	
3003	H14	0.08~0.12	±0.005	None	150~200	≥120	1	Evaporator fin and plate
3003	H26	0.3~0.35	±0.015	None	190~220	≥160	8	Glass mounting bracket material
3003	H14	0.06~0.1	±0.005	None	150~200	≥120	1	Radiator fin and plate
4343/3003/ 4343	H14	0.06~0.1	±0.005	8~12	150~200	≥120	1	
4343/3003/ 4343	H14	0.08~0.12	±0.005	8~12	150~200	≥120	1	Parallel condenser fin
4343/3003/ 4343	H14	0.1~0.12	±0.005	8~12	150~200	≥120	1	Charge air cooler material
4045/3003/ 4045	H14	0.1~0.12	±0.005	8~12	150~200	≥120	1	
1060	O	0.35~0.4	±0.02	None	55~95	≥15	25	Air cooling fin material for tubes
1100	O	0.35~0.4	±0.02	None	75~105	≥25	25	
3003	O	0.2~0.3	±0.01	None	100~150	≥45	15	Aluminum for heating element
3003	H16	0.5~0.7	±0.02	None	150~210	≥120	1	
4047	H18	0.05~0.1	±0.005	None	≥200	≥170	0.5	
4A13	H18	0.05~0.1	±0.005	None	≥190	≥16	0.5	
4104	H18	0.05~0.1	±0.005	None	≥220	≥190	0.5	
3003(inner fin)	O	0.2~0.3	±0.007	None	100~150	≥45	15	Oil cooler
6951(inner fin)	O	0.2~0.3	±0.007	None	115~165	≥50	15	

3003(external fin)	H14	0.1~0.15	±0.005	None	150~200	≥120	1	
3003(inner fin)	O	0.2~0.3	±0.007	None	100~150	≥45	15	Engineering machinery
3003(inner fin)	H12	0.2~0.3	±0.007	None	120~160	≥85	2	
3003(external fin)	H14	0.1~0.15	±0.005	None	150~200	≥120	1	
Performance index of plate material								
4343/3003	O	1.2~3	±0.03	5~10	100~150	≥45	25	Radiator fin and plate
4343/3003/7072	O	1.2~3	±0.03	5~10	~150	≥45	25	
4343/3003/4343	O	0.4~0.5	±0.02	8~12	100~150	≥45	27	Evaporator fin and plate
4045/3003/4045	O	0.8~1.2	±0.03	8~12	100~150	≥45	27	
4045/3003/4045	O	2~3	±0.05	8~12	100~150	≥45	25	Charge air cooler material
4045/3003/4045	O	0.5~0.8	±0.02	15~20, 10~15	100~150	≥45	25	Oil cooler
4104/3003/4104	O	0.5~0.8	±0.02	15~20, 10~15	100~150	≥45	25	
4104/3003/4104	H14	0.6~0.8, 1.2~1.5	±0.02, ±0.03	13~17, 8~12	150~200	≥120	3	Engineering machinery

In mechanically joined heat exchangers, high formability is essential to the trouble-free production of collar fins. We supply unclad materials like EN AW-1050, EN AW-1100, EN AW-1200, EN-AW 8006 or EN AW-8011, the production of which is tailored to meet this highly exacting requirement in fin forming.

## Application areas

- Automotive heat exchangers

We deliver:

- Clad tube stock for radiators, charge air coolers and heaters
- Clad fins for condensers
- Clad tube plates for evaporators and oil coolers
- Clad header plates and side plates for various types of heat exchangers
- Unclad fins for radiators, charge air coolers, heaters, condensers, evaporators and oil coolers

### 3. Aluminium strip for venetian blinds

Anyone seeking shade from the sun places great emphasis on the effectiveness and quality of the products on offer. Aluminium venetian blinds provide the best possible shade from the sun, heat and from prying eyes.

Aluminium strip for venetian blinds						
Product	Alloy	Temper	Thickness	Width	Diameter	Remark
Aluminum Shutter	5052, 3005	H19	0.125-0.25	15-100	300	

#### Key features

- Due to the rigid and lightweight design, aluminium venetian blinds are often used as sunshades.
- The quality of aluminium venetian blinds largely depends on the grade of the re-roll stock used.
- Hydro offers a proven standard alloy which provides high strength at reduced thickness.
- State-of-the-art rolling and slitting lines guarantee the tight-tolerance manufacture of strip with an outstanding surface finish and perfect cut edges.

### 4. Aluminium insulation and cable foil

<http://www.hydro.com/en/Products/Rolled-products/Strip-and-sheet-for-building/Insulation-and-cable-foil/>

The barrier properties and heat reflectivity of aluminium foil are widely used in building panels to improve insulation performance in modern building systems.

Dimensions						
Alloy (AA)	Temper	Thickness range (mm)	Width (mm)	Coil i.d. (mm)	Thickness tolerance	Length
1200 and 8011	0, H18	0.17 — 0.20	720 — 1220	203, 300 and 508	+/- 0.01 mm	Equivalent to 2 km or multiples

The barrier properties and heat reflectivity of aluminium foil are widely used in building panels to improve insulation performance in modern building systems.

## Key features

- Aluminium foil is used as a skin for heat-insulating and incombustible materials to provide high performance insulation for pipe work and ducting.
- The adhesive tape used to secure the laminated material is based on aluminium foil or its reflective surface, corrosion-resistance and long life.
- In electrical cables, aluminium foil helps give long-term insulation against moisture and attack from naturally occurring corrosive elements found above and below ground.
- Aluminium foil also acts as an insulator against the magnetic and radio frequency emissions associated with electrical cables.
- As a sheath for fiber-optic cables, aluminium foil uses its electrical conductivity to act as a “tracer” to enable testing of the integrity of cable links - as well as helping to provide the long-term protection every cable needs.
- In fire walls for vehicles and fireproof doors and building panels, aluminium foil stops access to the oxygen required to support flames.

## Application areas

- Fire walls
- Fire doors
- Fibre optic cables
- Electrical cables

## 5. Aluminium strip for tagger lids

Dimensions						
Alloy (AA)	Temper	Thickness range (mm)	Width (mm)	Coil i.d. (mm)	Thickness tolerance	Length
8011	H16	0.20-0.30	1200	203, 300 and 508	+/- 0.01 mm	Equivalent to 2 km or multiples

## Key features

- Impermeable to oxygen and light.
- Quality of the contents remains unimpaired, ensuring a long shelf-life.
- Cans are easily opened by means of scored or tear-off systems.
- Physiologically harmless - meets all valid food law requirements.
- Our strip for tagger lids offers many favourable properties: It can be hermetically closed, it facilitates easy opening and guarantees the product a long shelf-life.

## Custom design

- We supply pure aluminium strip, either with a clear, protective lacquer coating or with a heat-seal lacquer coating, in thicknesses from 0.060 to 0.120 mm.
- Haomei produces aluminium strip lacquered with a protective coating on both sides for “Penny Lever Closures” or coated with a heat-sealing lacquer on one side for “Peel-off” applications.
- Lids of this “Peel-off” quality can be opened very easily by means of the pre-formed easy open ring or tear-off tab. The lid detaches completely from the can.



# Application areas

- Packaging of powdered foodstuffs (milk, coffee, granulated beverages).
- Dry products (tobacco, mixed spices).

## 6. Aluminium strip for transformer

### AT ISSUE

There is a common misconception that a distribution transformer with copper windings is in some way more efficient, more reliable, or has higher short circuit strength when compared to a transformer with aluminum windings.

### RECOMMENDATION

Improvements in technology regarding the use of aluminum in transformers have made aluminum-wound transformers the ideal choice for today's applications.

### RATIONALE

**Operating Cost** - Cooper Power Systems designs aluminum-wound transformers with windings of a larger cross-sectional area than would be used for a copper wound unit. This larger cross-sectional area translates to a lower current density, and an equivalent operating temperature. By reducing the current density in the windings, a low-loss design can be achieved with aluminum or copper windings.

**Reliability** - A transformer's life is defined by the life of its insulation system. Because Cooper aluminum-wound and copper-wound units run at equivalent operating temperatures, the insulation systems age at the same rate for each design.

**Lower Cost First** - Whether low losses are the goal or not, aluminum windings are less expensive than copper windings. The following example shows two equivalent-loss designs, one with aluminum windings and one with copper windings.

ALUMINIUM STRIP FOR TRANSFORMER					
Alloy/Temper	1050-O, 1060-O, 1070-O, 1350-O				
Thickness	0.2-0.4	0.4-0.8	0.9-1.1	1.2-1.6	1.8-2.5
tolerance	±0.01	±0.015	±0.02	±0.025	±0.03

Width	<100	100-200	201-500	501-1250	>1250
tolerance	±0.1	±0.2	±0.2	±1	±2
<b>BURR AND COLLAPSE</b>					
The width of aluminium strip		Burr's height		Collapsed side's height	
<0.2		0.01		≥0.05-0.1	
0.2-1.0		0.015			
1.1-1.5		0.02			
>1.6		0.03			
<b>MECHANICAL PROPERTY</b>					
U.T.S: 60-95N/mm <sup>2</sup>			Elongation: >25%		
Density in 20°C :2.703kg/dm <sup>3</sup>			Max.resistance in 20°C: ≤ 0.02825Ωmm <sup>2</sup> /m		

## 7. Aluminium strip for Semi-rigid aluminium flexible duct

An extremely flexible reinforced aluminium foil flexible supply or extract ventilation ducting. Multi-ply aluminium and polyester laminate construction supported by a high tensile steel wire helix. Fire resistant.

Aluminium strip for Semi-rigid aluminium flexible duct						
Product	Alloy	Temper	Thickness	Width	Diameter	Remark
aluminium flexible duct	8011	O	0.08-0.13 mm	60mm	75, 150mm	Special width can be made. according to your demands.

Alloy	(Chemical Composition)%												Temper	Thickness	Tensile Strength(Mpa)	Elongation %
	Si	Fe	Cu	Mn	Mg	Cr	Zn	Ni	Ti	Other		Al				
										Each	Total					
8011	0.50-0.9	0.6-1.0	0.1000	0.2000	0.0500	0.0500	0.1000	-	0.0800	0.05	0.15	Remaining	O	0.01	50-105	1.00

## 8. Aluminium strip for lamp cap

Our lampcap materials combines strength and high formability with high resistance to softening in vitriting. Manufactured at modern and well-equipped mills, it can be rolled to very fine tolerances, allowing more caps per tonne of coil and enabling uninterrupted operations of high-speed forming presses.

### LAMP BASE MATERIALS

Specification (mm)				
Alloy	Temper	Thickness	Width	Coil ID
3004	0	0.25-0.40	85-400	75 150

Remark: Special specifications can be produced according to your requirement.

### TECHNICAL DATA SHEET

#### 1. CHEMICAL COMPOSITION:

Alloy	Si	Fe	Cu	Mn	Mg	Cr	Ni	Zn	Ga	Ti	Al
3004	≤ 0.30	≤ 0.70	≤ 0.25	1.0-1.5	0.8-1.3	≤ 0.05	≤ 0.05	≤ 0.25	-	≤ 0.05	other

#### 2. MECHANICAL PROPERTY

Alloy	Temper	Thickness(mm)	Width(mm)	U.T.S(Mpa)	Elongation(%)
3004	O	0.25-0.40	85-400	155-200	≥13

#### 3. TOLERANCE

Thickness	Width
±0.01mm	±0.5mm

