

Standard Tolerances

## **Stainless Steel Strip – Forms Finishes and Tolerances**

ATI strip stainless steels are flat-rolled products available in coils or cut lengths. Thicknesses range from 0.0015" to 0.1874" and widths up to 48".

ATI stainless strip is available within equipment limitations with any of these edges:

No. 1 – Round or square produced by machining or rolling

No. 3 – Produced by slitting

No. 5 - Essentially square produced by shaving or rolling after slitting

Each strip product is made to your specification. With proper prints, parts and description of environmental condition, the most suitable strip supplied to your specification can best be achieved.

ATI offers fully integrated production of a complete line of stainless steel strip in all standard grades and finishes. These are ideal for applications requiring corrosion resistance, strength, durability, and ease of cleaning.

Our Precision Rolled Strip<sup>®</sup> products are tailor-made for specific end uses in the lighter strip thicknesses. These products are typically produced to very tight dimensional, surface and metallurgical property tolerances.

## CAMBER

Up to and including 1-1/2" wide: 1/2" maximum in any 8-foot length. Over 1-1/2" to 23.999" wide: 1/4" maximum in any 8-foot length. Camber to be determined by placing an 8-foot straight edge against the concave edge of the strip.

## SIZE TOLERANCES

### Thickness

Series 200, 300 and 400 grades are measured 3/8" in from edge on 1" or wider and on narrower than 1" at any place on the strip.

Thickness Tolerance – Inch +/-						
Thickness	Width - Inch					
Under Incl.	0.1875 to 0.999 incl.	1 to 2.999 incl.	3 to 6 incl.	Over 6 to 12 incl.	Over 12 to 16 incl.	Over 16 to under 24
0.1875 to 0.161	0.004	0.004	0.004	0.004	0.005	0.006
0.161 to 0.100	0.004	0.004	0.004	0.004	0.004	0.005
0.100 to 0.069	0.003	0.003	0.003	0.003	0.004	0.004
0.069 to 0.050	0.003	0.003	0.003	0.003	0.003	0.003
0.050 to 0.040	0.0025	0.0025	0.0025	0.003	0.003	0.003
0.040 to 0.035	0.002	0.002	0.002	0.002	0.002	0.002
0.035 to 0.029	0.0015	0.0015	0.002	0.002	0.002	0.002
0.029 to 0.026	0.001	0.0015	0.0015	0.0015	0.0015	0.0015
0.026 to 0.020	0.001	0.001	0.0015	0.0015	0.0015	0.0015
0.020 to 0.015	0.001	0.001	0.001	0.0015	0.0015	0.0015
0.015 to 0.001	5%	5%	5%	5%	<mark>5</mark> %	5%

### Annealed Strip

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# **Strip Standard Tolerances**



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### **Temper Rolled Strip**

Thickness Tolerance – Inch +/-						
Thickness	Width - Inch					
Under Incl.	0.1875 to 0.999 incl.	1 to 2.999 incl.	3 to 6 incl.	Over 6 to 12 incl.	Over 12 to 16 incl.	Over 16 to under 24
0.1875 to 0.161	0.004	0.004	0.004	0.004	0.005	0.006
0.161 to 0.100	0.004	0.004	0.004	0.004	0.004	0.005
0.100 to 0.069	0.003	0.003	0.003	0.003	0.004	0.004
0.069 to 0.050	0.003	0.003	0.003	0.003	0.003	0.004
0.050 to 0.040	0.0025	0.0025	0.0025	0.003	0.003	0.004
0.040 to 0.035	0.002	0.002	0.0025	0.003	0.003	0.003
0.035 to 0.029	0.0015	0.0015	0.002	0.0025	0.0025	0.003
0.029 to 0.026	0.001	0.0015	0.0015	0.002	0.002	0.003
0.026 to 0.020	0.001	0.001	0.0015	0.002	0.002	0.0025
0.020 to 0.015	0.001	0.001	0.001	0.0015	0.002	0.002
0.015 to 0.001	5%	5%	5%	5%	5%	5%
0.001 to 0.0005	5%	5%	5%	5%		

## Width

Narrow width tolerances are maintained on strip product, but such tolerances vary depending upon whether an as-slit edge (No. 3) or mechanically prepared edge (Nos. 1 and 5) is ordered.

## Annealed Strip - Width (No. 3 Edge) Slit

WidthTolerance – Inch +/-						
Thickness	Width - Inch					
Under Incl.	0.1875 to 0.499 incl.	1/2 to 6 incl.	Over 6 to 9 incl.	Over 9 to 12 incl.	Over 12 to 20 incl.	Over 20 to under 24
0.1875 to 0.161		0.016	0.020	0.020	0.031	0.031
0.161 to 0.100	0.010	0.010	0.016	0.016	0.020	0.020
0.100 to 0.069	0.008	0.008	0.010	0.010	0.016	0.020
0.069 to 0.015	0.005	0.005	0.005	0.010	0.016	0.020
0.015 to 0.002	0.005	0.005	0.005	0.010	0.016	0.020

#### Annealed Strip - Width (Nos. 1 and 5 Edges) - Round of Square 200/300 Series

Edge No.	Width Inch	Thickness Inch	Tolerance Inch +/-
1	1.75 or	Under 0.055	0.005
	narrower		
5	1.75 or	Under 0.055	0.005
	narrower		

#### Length

Length of Strip Feet	Tolerance - Inch All Over, Nothing Under
Up to 5 inclusive	3/8
5 to 10 inclusive	1/2
10 to 20 inclusive	5/8

Lengths over 20 feet, refer to mill for quotation.

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## **Strip Standard Tolerances**



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## **Standard Finishes**

The chromium-nickel and straight chromium grades of stainless steel strip can be surface treated to provide a wide variety of finishes.

- #1 Hot Rolled, annealed and pickled
- #1D Cold Rolled, annealed and pickled
- #2D- Cold rolled, annealed, pickled, or annealed and skin passed with dull rolls.
- #1B Cold rolled on polished rolls, annealed and pickled
- #2B Cold rolled on polished rolls, annealed, pickled, and skin passed on polished rolls
- #1BA Cold rolled on polished rolls, annealed in a protective atmosphere retaining the as-rolled surface appearance
- #2BA Same as #1BA except the annealed strip receives a final skin pass.
- #1CBA Dull cold rolled and annealed in a protective atmosphere

**#1 Bright Hardened** - Martensitic grades cold rolled on polished rolls and heat treated in a protective atmosphere, retaining the as-rolled surface appearance.

#2TR - Cold rolled to a temper specified by the customer

Special finished are available upon request.

## COATINGS

Adhesive vinyl coverings are available with a range of adhesive strengths for various applications.

## **Oscillate Wound**

Width - Inches	Thickness - Inch
0.125 through 1.750 ID 16	0.008 through 0.055

Coils up to 2000 lbs. (depending on width and gage) are available as oscillate wound.

### **On Application**

Strip gages are available in up to 48" widths.

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