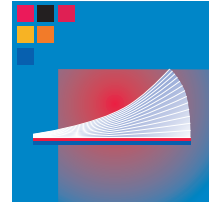
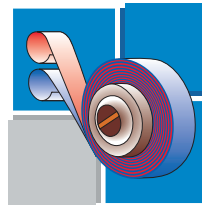




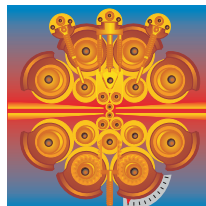
**AUERHAMMER**  
METALLWERK GMBH



Thermostatic Bimetals

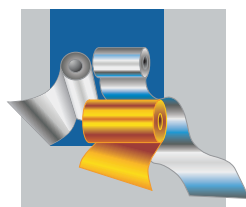


Clad Materials



**Metal Strips**

- Soft-magnetic Iron-Nickel-Alloys
- Sealing and Expansion Alloys
- Nickel
- Nickel-Chromium-Alloys
- Nickel-Copper-Alloys**
- Copper-Nickel-Alloys
- Nickel-Manganese-Alloys



Metallic Foils

Product group:

# Nickel-Copper-Alloys

## 1. ALLOY

AMW-TRADE NAME	ALLOY	STANDARD	MATERIAL-NO. DIN/UNS
Silverin 400	NiCu30Fe	DIN 17743/ASTM B127	2.4360/N04400
Silverin 500	NiCu30Al	DIN 17743	2.4375/N05500
Silverin 404	NiCu45		

## 2. AVERAGE CHEMICAL COMPOSITION

(mass - %)

AMW-TRADE NAME	Ni (+Co)	Al	C	Cu	Fe	Mn	Si	Ti
Silverin 400	min.	63		28	1.0			
	max.		0.5	0.15	34	2.5	2.0	0.5
Silverin 500	min.	63	2.2	27	0.5			0.3
	max.		3.5	0.2	34	2.0	1.5	0.5
Silverin 404	min.	54.5						
	max.	55.5	0.1	0.1	bal.	0.3	0.1	0.1

### 3. PHYSICAL PROPERTIES

AMW-TRADE NAME	DENSITY		THERMAL EXPANSION COEFFICIENT		CURIE - TEMPERATURE		THERMAL CONDUCTIVITY	
	lb/in. <sup>3</sup>	g/cm <sup>3</sup>	68 TO 212 °F 10 <sup>-6</sup> /°F	20 °C TO 100 °C 10 <sup>-6</sup> /°C	°F	°C	AT 68 °F Btu·in./h·ft <sup>2</sup> ·°F	AT 20 °C W/m·K
Silverin 400	0.318	8.8	7.7	14	122	50	182	26
Silverin 500	0.307	8.5	7.6	13.7	275* 212**	135* 100**	133	19
Silverin 404	0.322	8.9	7.4	13			147	21

\* solution heat treated / \*\* precipitation hardened

### 4. MECHANICAL PROPERTIES

AMW-TRADE NAME	TEMPER	YIELD STRENGTH Rp 0.2		TENSILE STRENGTH Rm		ELONGATION	HARDNESS BRINELL	
		ksi	MPa	ksi	MPa		ROCKWELL B HRB	HB
Silverin 400	annealed hard	36	250	80 125	550 860	40 5	68 95	120 200
Silverin 500	annealed hard	40 to 60 95 to 160	275 to 415 655 to 1100	90 to 110 135 to 185	620 to 760 930 to 1275	25 to 50 15 to 25	85 25 to 44 HRC	
Silverin 404	annealed	23	160	65	450	45	55	

## 5. DIMENSIONS AND TOLERANCES

### THICKNESS TOLERANCES

in.	THICKNESS mm		WIDTH in.		WIDTH mm		WIDTH in.		WIDTH mm	
			0.39 to 3.94	10 to 100	> 3.94 to 7.87	> 100 to 200	> 7.87 to 11.81	> 200 to 300		
0.004 to 0.008	0.10 to 0.20		± 0.0004	± 0.010	± 0.0006	± 0.015	± 0.0006	± 0.015	± 0.0006	± 0.015
> 0.008 to 0.012	> 0.20 to 0.30		± 0.0006	± 0.015	± 0.0006	± 0.015	± 0.0008	± 0.020	± 0.0008	± 0.020
> 0.012 to 0.020	> 0.30 to 0.50		± 0.0008	± 0.020	± 0.0008	± 0.020	± 0.0010	± 0.025	± 0.0010	± 0.025
> 0.020 to 0.039	> 0.50 to 1.00		± 0.0010	± 0.025	± 0.0010	± 0.025	± 0.0012	± 0.030	± 0.0012	± 0.030
> 0.039 to 0.059	> 1.00 to 1.50		± 0.0012	± 0.030	± 0.0016	± 0.040	± 0.0016	± 0.040	± 0.0016	± 0.040
> 0.059 to 0.079	> 1.50 to 2.00		± 0.0016	± 0.040	± 0.0016	± 0.040	± 0.0020	± 0.050	± 0.0020	± 0.050
> 0.079	> 2.00		± 0.0020	± 0.050	± 0.0020	± 0.050	± 0.0024	± 0.060	± 0.0024	± 0.060

Other thickness and tolerances on request.

### WIDTH TOLERANCES

in.	WIDTH mm		THICKNESS in.		THICKNESS mm		THICKNESS in.		THICKNESS mm	
			0.004 to 0.039	0.10 to 1.00	> 0.039 to 0.071	> 1.00 to 1.80	> 0.071 to 0.098	> 1.80 to 2.50		
≤ 3.94	≤ 100		± 0.004	± 0.10	± 0.007	± 0.18	± 0.010	± 0.25	± 0.010	± 0.25
> 3.94 to 7.87	> 100 to 200		± 0.006	± 0.15	± 0.010	± 0.25	± 0.014	± 0.35	± 0.014	± 0.35
> 7.87 to 11.81	> 200 to 300		± 0.012	± 0.30	± 0.020	± 0.50	± 0.024	± 0.60	± 0.024	± 0.60

Other width and tolerances on request.

## LENGTH TOLERANCES (CUT LENGTH)

in.	THICKNESS		LENGTH	
	mm	in.	mm	mm
0.016 to 0.079	0.40 to 2.00	+ 0.40	20 to 118	500 to 3000

Other tolerances on request.

## 6. PRODUCT FORM

FORM	THICKNESS		WIDTH		LENGTH		COIL - ID		COIL - OD	
	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm
Strip	0.004 to 0.098	0.10 to 2.50	0.39 to 11.81	10 to 300			11.81/15.75/19.69	300/400/500	max. 43.3	max. 1100
Cut length	0.016 to 0.079	0.40 to 2.00	1.97 to 11.81	50 to 300	20 to 118	500 to 3000				

Other form on request.

All data contained in this document are for information purposes only.  
Other properties can be engineered according to customer specifications.

Guarantees of specific characteristics or applications require special written agreement.



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