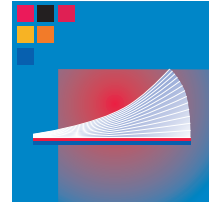
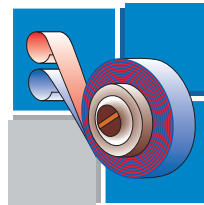




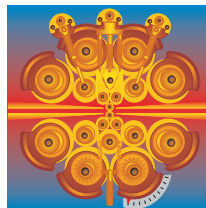
AUERHAMMER
METALLWERK GMBH



Thermostatic Bimetals

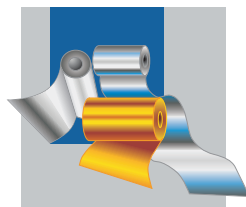


Clad Materials



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:

Copper-Nickel-Alloys

1. ALLOY

AMW-TRADE NAME	ALLOY	STANDARD	MATERIAL-No. DIN/UNS
CuNi8	CuNi8		
CuNi10	CuNi10	DIN 17471	2.0811/C70700
CuNi20	CuNi20	BS 2870	CN104/C71000
CuNi30	CuNi30		C71580
Vernicon	CuNi44Mn1	DIN 17664	2.0842/N04401/C72150
CuNi10Fe1Mn	CuNi10Fe1Mn	EN 1652/ASTM B122	CW352H/C70600
CuNi30Mn1Fe	CuNi30Mn1Fe	EN 1652/ASTM B122	CW354H/C71500
CuNi30Mn1FeTi	CuNi30Mn1FeTi		2.0822
CuNi30Fe2Mn2	CuNi30Fe2Mn2	DIN 17664	2.0883/C71640

2. AVERAGE CHEMICAL COMPOSITION

(mass - %)

AMW-TRADE NAME	Ni (+Co)	Cu	Fe	Mn	C	Ti
CuNi8	≤ 8.0	bal.	≤ 0.1	≤ 0.3		
CuNi10	≤ 11.0	bal.	≤ 0.1	≤ 0.3		
CuNi20	19.0 - 20.0	bal.	≤ 0.2	≤ 0.5		
CuNi30	29.0 - 32.0	bal.	≤ 0.5	≤ 0.3	≤ 0.1	
Vernicon	43.0 - 45.0	bal.	≤ 0.5	0.5 - 2.0	≤ 0.1	
CuNi10Fe1Mn	9.0 - 11.0	bal.	1.0 - 1.8	0.5 - 1.0	≤ 0.1	
CuNi30Mn1Fe	30.0 - 32.0	bal.	0.4 - 1.0	0.4 - 1.0	≤ 0.1	
CuNi30Mn1FeTi	30.0 - 32.0	bal.	0.4 - 1.0	0.4 - 1.0	≤ 0.1	≤ 0.1
CuNi30Fe2Mn2	29.0 - 32.0	bal.	1.5 - 2.5	1.5 - 2.5	≤ 0.1	

3. PHYSICAL PROPERTIES

AMW-TRADE NAME	DENSITY	ELECTRICAL RESISTIVITY AT 20 °C	THERM. EXPANSION COEFFICIENT 20 °C - 100 °C	THERMAL CONDUCTIVITY AT 20 °C
	g/cm ³	μΩ·m	10 ⁻⁶ /K	W/m·K
CuNi8	8.9	0.125	16	75
CuNi10	8.9	0.15	16	59
CuNi20	8.9	0.265	15	49
CuNi30	8.9	0.37	15	39
Vernicon	8.9	0.49	13.5	22
CuNi10Fe1Mn	8.9	0.17	17	48
CuNi30Mn1Fe	8.9	0.37	16	25
CuNi30Mn1FeTi	8.9	0.40		25
CuNi30Fe2Mn2	8.9			

4. MECHANICAL PROPERTIES

AMW-TRADE NAME	TEMPER	YIELD STRENGTH Rp 0.2	TENSILE STRENGTH Rm	ELONGATION	BRINELL HARDNESS
		MPa	MPa	%	HB
CuNi8	annealed	min. 90	min.250	min.35	max. 80
CuNi10	annealed	min.100	min.290	min.35	max. 85
CuNi20	annealed	min.100	min.290	min.35	max. 85
CuNi30	annealed	min.100	min.290	min.35	max. 85
Vernicon	annealed	min.150	min.420	min.30	max.115
CuNi10Fe1Mn	annealed	min.100	min.300	min.25	max.115
CuNi30Mn1Fe	annealed	min.120	min.350	min.30	max.115
CuNi30Mn1FeTi	annealed	min.130	min.370	min.35	max.115
CuNi30Fe2Mn2	annealed	min.130	min.380	min.35	max.115

5. DIMENSIONS AND TOLERANCES

(mm)

THICKNESS TOLERANCES

THICKNESS	WIDTH 10 - 320
0.10 - 0.20	± 0.020
> 0.20 - 0.40	± 0.030
> 0.40 - 0.50	± 0.040
> 0.50 - 0.80	± 0.050
> 0.80 - 1.20	± 0.060
> 1.20 - 1.80	± 0.080
> 1.80 - 2.50	± 0.090
> 2.50 - 3.00	± 0.100

Other thickness and tolerances on request.

WIDTH TOLERANCES

WIDTH	THICKNESS 0.10 - 1.00	THICKNESS > 1.00 - 2.00	THICKNESS > 2.00 - 2.50	THICKNESS > 2.50 - 3.00
10 - 50	+ 0.2	+ 0.3	+ 0.5	+ 1.0
> 50 - 100	+ 0.3	+ 0.4	+ 0.6	+ 1.1
> 100 - 200	+ 0.4	+ 0.5	+ 0.7	+ 1.2
> 200 - 320	+ 0.6	+ 1.0	+ 1.2	+ 1.5

Other width and tolerances on request.

LENGTH TOLERANCES (CUT LENGTH)

THICKNESS	LENGTH 500 - 3000
0.40 - 2.00	+ 10

Other tolerances on request.

6. PRODUCT FORM

(mm)

FORM	THICKNESS	WIDTH	LENGTH	COIL-ID	COIL-OD
Strip	0.10 - 3.00	10 - 320		300/400/500	max. 1050
Cut length	0.40 - 2.00	50 - 320	500 - 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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