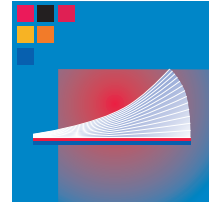
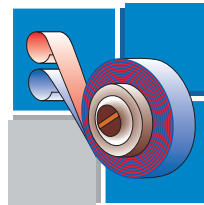




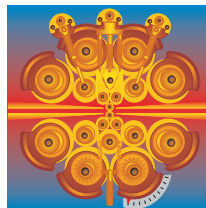
AUERHAMMER
METALLWERK GMBH



Thermostatic Bimetals

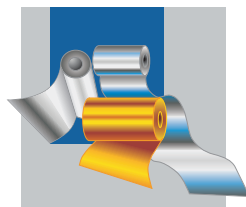


Clad Materials



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-Manganese-Alloys

1. ALLOY

AMW-TRADE NAME	ALLOY	STANDARD	MATERIAL-NO. DIN/UNS
NiMn1	NiMn1	DIN 17741	2.4110
NiMn2	NiMn2	DIN 17741	2.4110/N02212
NiMn5	NiMn5	DIN 17741/ASTM F290	2.4116/N02211
NiMn4Si	NiMn4Si		
NiMn2Cr	NiMn2CrSiTiZr		

2. AVERAGE CHEMICAL COMPOSITION

(mass - %)

AMW-TRADE NAME		Ni (+Co)	C	Cr	Cu	Fe	Mg	Mn	S	Si	Ti	Zr
NiMn1	min.	98						0.4				
	max.		0.15	0.1	0.50	0.50	0.15	1.0	0.010	0.25	0.10	
NiMn2	min.	97						1.5				
	max.		0.1		0.25	0.35	0.15	2.5	0.010	0.25	0.10	
NiMn5	min.	94						4.5				
	max.		0.15		0.3	0.4	0.2	5.5	0.010	0.2	0.10	
NiMn4Si	min.	94						4.0		0.9		
	max.		0.1		0.2	0.8		4.6	0.06	1.1		
NiMn2Cr	min.	94.5		1.7				1.8		0.35	0.25	0.1
	max.	95.5	0.02	1.9	0.1	0.3	0.02	2.1	0.005	0.55	0.4	0.2

3. PHYSICAL PROPERTIES

AMW-TRADE NAME	DENSITY	ELECTRICAL RESISTIVITY AT 20 °C	THERMAL EXPANSION COEFFICIENT 20 °C - 100 °C	CURIE-TEMPERATURE
	g/cm ³	μΩ·m	10 ⁻⁶ /K	°C
NiMn1	8.8		13	360
NiMn2	8.8	0.115	13	360
NiMn5	8.8		13	
NiMn4Si	8.8		13	
NiMn2Cr	8.8		13	

4. MECHANICAL PROPERTIES

AMW-TRADE NAME	TEMPER	TENSILE STRENGTH Rm	ELONGATION	BRINELL-HARDNESS
		MPa	%	HB
NiMn1	annealed quarter hard	min. 370 min. 490	min. 40 min. 20	max. 120 ca. 140
NiMn2	annealed quarter hard hard	min. 400 min. 540 min. 740	min. 40 min. 20 min. 2	max. 130 ca. 160 ca. 220
NiMn5	annealed			max. 130
NiMn4Si	annealed	min. 450	min. 40	max. 130
NiMn2Cr	annealed quarter hard	min. 450 min. 550	min. 30 min. 15	max. 130 ca. 210

5. DIMENSIONS AND TOLERANCES

(mm)

THICKNESS TOLERANCES

THICKNESS	WIDTH 10 - 100	WIDTH > 100 - 200	WIDTH > 200 - 300
0.10 - 0.15	± 0.010	± 0.015	± 0.020
> 0.15 - 0.20	± 0.015	± 0.020	± 0.020
> 0.20 - 0.35	± 0.020	± 0.030	± 0.030
> 0.35 - 0.50	± 0.030	± 0.040	± 0.040
> 0.50 - 1.00	± 0.040	± 0.050	± 0.050
> 1.00 - 1.50	± 0.050	± 0.060	± 0.060
> 1.50 - 2.20	± 0.060	± 0.070	± 0.080
> 2.20 - 3.00	± 0.080	± 0.090	± 0.100

Other thickness and tolerances on request.

WIDTH TOLERANCES

WIDTH	THICKNESS 0.10 - 1.00	THICKNESS > 1.00 - 1.80	THICKNESS > 1.80 - 2.50	THICKNESS > 2.50 - 3.00
10 - 100	+ 0.2	+ 0.3	+ 0.5	+ 1.0
> 100 - 200	+ 0.3	+ 0.5	+ 0.7	+ 1.2
> 200 - 300	+ 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 - 300		300/400/500	max. 1050
Cut length	0.40 - 2.00	50 - 300	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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