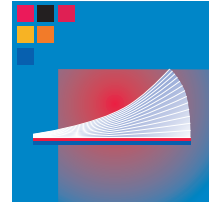
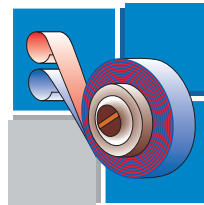




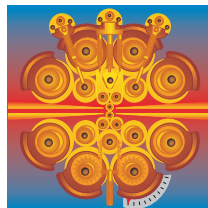
AUERHAMMER
METALLWERK GMBH



Thermostatic Bimetals



Clad Materials

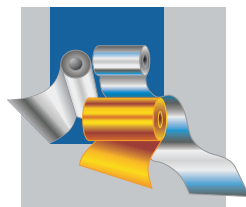


Metal Strips

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

1. ALLOY

AMW-TRADE NAME	ALLOY	SIMILAR NAME	STANDARD	MATERIAL-NO. DIN/UNS
BR-Ni99.6	Ni99.6		DIN 17740	2.4060
NR-Ni99.6	LC-Ni99.6		DIN 17740	2.4061
R-Ni99.2	Ni99.2	Nickel 200	DIN 17740/ASTM B 162	2.4066/N02200
NR-Ni99	LC-Ni99	Nickel 201	DIN 17740/ASTM B 162	2.4068/N02201

2. AVERAGE CHEMICAL COMPOSITION

(mass - %)

AMW-TRADE NAME	Ni (+Co)	C	Cu	Fe	Mg	Mn	S	Si	Ti
BR-Ni99.6	min.	99.6							
	max.		0.08	0.15	0.25	0.15	0.35	0.005	0.15
NR-Ni99.6	min.	99.6							
	max.		0.02	0.15	0.25	0.15	0.35	0.005	0.15
R-Ni99.2	min.	99.2							
	max.		0.10	0.25	0.40	0.15	0.35	0.005	0.25
NR-Ni99	min.	99.0							
	max.		0.02	0.25	0.40	0.15	0.35	0.005	0.25

Max. 1 % Cobalt is acceptable.

3. PHYSICAL PROPERTIES

AMW-TRADE NAME	DENSITY		ELECTRICAL RESISTIVITY		THERM. EXPANSION COEFFICIENT		CURIE - TEMPERATURE	
	lb/in. ³	g/cm ³	AT 68 °F Ω·cmil/ft	AT 20 °C μΩ·m	68 TO 212 °F 10 ⁻⁶ /°F	20 °C TO 100 °C 10 ⁻⁶ /°C	°F	°C
BR-Ni99.6								
NR-Ni99.6	0.322	8.9	54	0.09	7.2	13	680	360
R-Ni99.2								
NR-Ni99								

4. MECHANICAL PROPERTIES

AMW-TRADE NAME	TEMPER	TENSILE STRENGTH Rm		ELONGATION	HARDNESS BRINELL	
		ksi	MPa		ROCKWELL B HRB	HB
BR-Ni99.6	annealed quarter hard hard	min. 55 approx. 71 approx. 85	min. 370 approx. 490 approx. 590	min. 40 min. 15 min. 2	max. 74 approx. 81 approx. 93	max. 130 approx. 150 approx. 200
NR-Ni99.6	annealed quarter hard	min. 50 approx. 62	min. 340 approx. 430	min. 40 min. 15	min. 74 approx. 81	max. 130 approx. 150
R-Ni99.2	annealed quarter hard hard	min. 55 approx. 71 approx. 85	min. 370 approx. 490 approx. 590	min. 40 min. 15 min. 2	max. 74 approx. 81 approx. 93	max. 130 approx. 150 approx. 200
NR-Ni99	annealed quarter hard three-quarter-hard	min. 50 approx. 62 approx. 80	min. 340 approx. 430 approx. 540	min. 40 min. 15 min. 5	max. 74 approx. 81 approx. 89	max. 130 approx. 150 approx. 180

5. DIMENSIONS AND TOLERANCES

THICKNESS TOLERANCES

in.	THICKNESS		WIDTH		WIDTH		WIDTH	
	mm	mm	in.	mm	in.	mm	in.	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 0.006	0.10 to 0.15		± 0.0003	± 0.008	± 0.0004	± 0.010	± 0.0004	± 0.010
> 0.006 to 0.008	> 0.15 to 0.20		± 0.0004	± 0.010	± 0.0006	± 0.015	± 0.0006	± 0.015
> 0.008 to 0.014	> 0.20 to 0.35		± 0.0006	± 0.015	± 0.0006	± 0.015	± 0.0008	± 0.020
> 0.014 to 0.020	> 0.35 to 0.50		± 0.0008	± 0.020	± 0.0008	± 0.020	± 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
> 0.039 to 0.059	> 1.00 to 1.50		± 0.0012	± 0.030	± 0.0012	± 0.030	± 0.0016	± 0.040
> 0.059 to 0.087	> 1.50 to 2.20		± 0.0016	± 0.040	± 0.0016	± 0.040	± 0.0020	± 0.050
> 0.087 to 0.118	> 2.20 to 3.00		± 0.0020	± 0.050	± 0.0020	± 0.050	± 0.0024	± 0.060

Other thickness and tolerances on request.

WIDTH TOLERANCES

in.	WIDTH		THICKNESS		THICKNESS		THICKNESS	
	mm	mm	in.	mm	in.	mm	in.	mm
			0.039 to 0.071	> 1.00 to 1.80	> 0.071 to 0.098	> 1.80 to 2.50	> 0.098 to 0.118	> 2.50 to 3.00
0.39 to 3.94	10 to 100		± 0.004	± 0.1	± 0.008	± 0.2	± 0.012	± 0.5
> 3.94 to 7.87	> 100 to 200		± 0.008	± 0.2	± 0.012	± 0.3	± 0.016	± 0.6
> 7.87 to 11.81	> 200 to 300		± 0.012	± 0.3	± 0.020	± 0.5	± 0.024	± 0.8

Other width and tolerances on request.

LENGTH TOLERANCES (CUT LENGTH)

THICKNESS		LENGTH	
in.	mm	in.	mm
0.016 to 0.079	0.40 to 2.00	20 to 118 + 0.40	500 to 3000 + 10

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 0.118	0.10 to 3.00	0.39 to 11.81	10 to 300			11.81/15.75/19.69	300/400/500	max. 41.3	max. 1050
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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