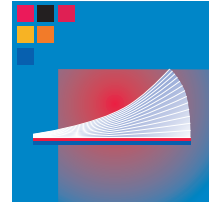
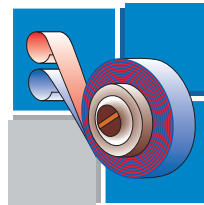




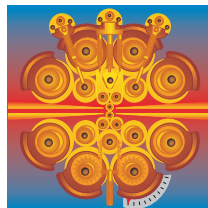
**AUERHAMMER**  
METALLWERK GMBH



Thermostatic Bimetals



Clad Materials

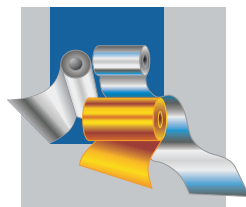


**Metal Strips**

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	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	DIN 17740/ASTM B 162	2.4066/N02200
NR-Ni99	LC-Ni99	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 AT 20 °C	THERM. EXPANSION COEFFICIENT 20 °C - 100 °C	CURIE-TEMPERATURE
	g/cm <sup>3</sup>	μΩ·m	10 <sup>-6</sup> /K	°C
BR-Ni99.6	8.9	0.09	13	360
NR-Ni99.6				
R-Ni99.2				
NR-Ni99				

### 4. MECHANICAL PROPERTIES

AMW-TRADE NAME	TEMPER	TENSILE STRENGTH Rm	ELONGATION	BRINELL HARDNESS
		MPa	%	HB
BR-Ni99.6	annealed quarter-hard hard	min. 370 min. 490 min. 590	min. 40 min. 15 min. 2	max. 130 ca. 150 ca. 200
NR-Ni99.6	annealed quarter-hard	min. 340 min. 430	min. 40 min. 15	max. 130 ca. 150
R-Ni99.2	annealed quarter-hard hard	min. 370 min. 490 min. 590	min. 40 min. 15 min. 2	max. 130 ca. 150 ca. 200
NR-Ni99	annealed quarter-hard three-quarter-hard	min. 340 min. 430 min. 540	min. 40 min. 15 min. 5	max. 130 ca. 150 ca. 180

## 5. DIMENSIONS AND TOLERANCES

(mm)

### THICKNESS TOLERANCES

THICKNESS	WIDTH 10 - 100	WIDTH > 100 - 200	WIDTH > 200 - 300
0.10 - 0.15	± 0.008	± 0.010	± 0.010
> 0.15 - 0.20	± 0.010	± 0.015	± 0.015
> 0.20 - 0.35	± 0.015	± 0.015	± 0.020
> 0.35 - 0.50	± 0.020	± 0.020	± 0.025
> 0.50 - 1.00	± 0.025	± 0.025	± 0.030
> 1.00 - 1.50	± 0.030	± 0.030	± 0.040
> 1.50 - 2.20	± 0.040	± 0.040	± 0.050
> 2.20 - 3.00	± 0.050	± 0.050	± 0.060

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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