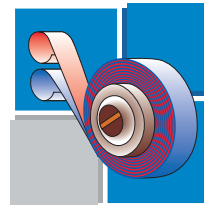
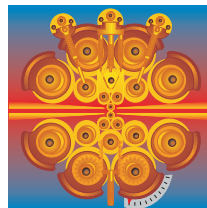


Thermostatic Bimetals

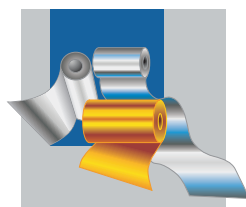


Clad Materials



**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-Chromium-Alloys

## 1. ALLOY

| AMW-TRADE NAME   | ALLOY       | STANDARD             | MATERIAL-No.<br>DIN/UNS |
|------------------|-------------|----------------------|-------------------------|
| Ferrochronin 600 | NiCr15Fe    | DIN 17742/ASTM B 168 | 2.4816/N06600           |
| Ferrochronin 601 | NiCr23Fe    | DIN 17742/ASTM B 168 | 2.4851/N06601           |
| Chronin 625      | NiCr22Mo9Nb | DIN 17744/ASTM B 443 | 2.4856/N06625           |
| NiCr9            | NiCr9       |                      | 2.4870                  |

## 2. AVERAGE CHEMICAL COMPOSITION

(mass - %)

| AMW-TRADE NAME   |      | Ni (+Co) | Cr | Al  | C     | Cu  | Fe  | Mn  | Si  | Ti  | Mo | Nb   |
|------------------|------|----------|----|-----|-------|-----|-----|-----|-----|-----|----|------|
| Ferrochronin 600 | min. | 72       | 14 |     | 0.025 |     | 6   |     |     |     |    |      |
|                  | max. |          | 17 | 0.3 | 0.1   | 0.5 | 10  | 1.0 | 0.5 | 0.3 |    |      |
| Ferrochronin 601 | min. | 58       | 21 | 1.0 |       |     |     |     |     |     |    |      |
|                  | max. | 63       | 25 | 1.7 | 0.1   | 0.5 | 18  | 1.0 | 0.5 | 0.5 |    |      |
| Chronin 625      | min. | 58       | 20 |     |       |     |     |     |     |     | 8  | 3.15 |
|                  | max. |          | 23 | 0.4 | 0.1   | 0.5 | 5   | 0.5 | 0.5 | 0.4 | 10 | 4.15 |
| NiCr9            | min. |          | 9  |     |       |     |     | 0.2 | 0.1 |     |    |      |
|                  | max. | bal.     | 10 | 0.1 | 0.1   | 0.1 | 0.3 | 0.4 | 0.2 | 0.1 |    |      |

### 3. PHYSICAL PROPERTIES

| AMW-TRADE NAME   | DENSITY           | THERMAL EXPANSION COEFFICIENT<br>20 °C - 100 °C | THERMAL CONDUCTIVITY<br>AT 20 °C | MODULUS OF ELASTICITY |
|------------------|-------------------|---|----------------------------------|-----------------------|
|                  | g/cm <sup>3</sup> | 10 <sup>-6</sup> /K                             | W/m•K                            | GPa                   |
| Ferrochronin 600 | 8.5               | 14  | 11                               |                       |
| Ferrochronin 601 | 8.2               | 14  | 11                               | 207                   |
| Chronin 625      | 8,4               | 11  | 10                               |                       |
| NiCr9            | 8.3               |   |                                  |                       |

### 4. MECHANICAL PROPERTIES

| AMW-TRADE NAME   | TEMPER   | YIELD STRENGTH<br>Rp 0.2 | TENSILE STRENGTH<br>Rm | ELONGATION | VICKERS-HARDNESS |
|------------------|----------|--------------------------|------------------------|------------|------------------|
|                  |          | MPa                      | MPa                    | %          | HV               |
| Ferrochronin 600 | annealed | 270                      | 650                    | 40         | 150              |
| Ferrochronin 601 | annealed | 350                      | 740                    | 40         | 180              |
| Chronin 625      | annealed | 440                      | 910                    | 40         | 215              |
| NiCr9            | annealed | 270                      | 550                    | 35         | 135              |

## 5. DIMENSIONS AND TOLERANCES (mm)

### THICKNESS TOLERANCES

| THICKNESS     | WIDTH<br>10 - 100 | WIDTH<br>> 100 - 200 | WIDTH<br>> 200 - 300 |
|---------------|-------------------|----------------------|----------------------|
| 0.20 - 0.35   | ± 0.020           | ± 0.020              | ± 0.030              |
| > 0.35 - 0.60 | ± 0.030           | ± 0.030              | ± 0.040              |
| > 0.60 - 1.00 | ± 0.040           | ± 0.050              | ± 0.050              |
| > 1.00 - 1.50 | ± 0.050           | ± 0.060              | ± 0.070              |
| > 1.50 - 2.50 | ± 0.060           | ± 0.070              | ± 0.080              |

Other thickness and tolerances on request.

### WIDTH TOLERANCES

| WIDTH       | THICKNESS<br>0.20 - 1.00 | THICKNESS<br>> 1.00 - 1.80 | THICKNESS<br>> 1.80 - 2.50 |
|-------------|--------------------------|----------------------------|----------------------------|
| ≤ 100       | + 0.2                    | + 0.3                      | + 0.5                      |
| > 100 - 200 | + 0.3                    | + 0.5                      | + 0.7                      |
| > 200 - 300 | + 0.6                    | + 1.0                      | + 1.2                      |

Other width and tolerances on request.

### LENGTH TOLERANCES (CUT LENGTH)

| THICKNESS   | LENGTH<br>500 - 3000 |
|-------------|----------------------|
| 0.40 - 2.00 | + 10                 |

Other tolerances on request.

## 6. PRODUCT FORM

(mm)

| FORM       | THICKNESS   | WIDTH    | LENGTH     | COIL-ID     | COIL-OD   |
|------------|-------------|----------|------------|-------------|-----------|
| Strip      | 0.20 - 2.50 | 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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