# **SUNDWIGER**

Messingwerk

### Nickel Silver (Copper-Nickel-Zinc) ND12 | ND18



| Material Designation |            |            |  |  |  |
|----------------------|------------|------------|--|--|--|
| Sundwiger            | ND12       | ND18       |  |  |  |
| DIN-EN Symbol        | CuNi12Zn24 | CuNi18Zn20 |  |  |  |
| DIN -EN              | CW403J     | CW409J     |  |  |  |
| UNS                  | C75700     | C76400     |  |  |  |

## **About the Alloy**

Nickel silver is distinguished by its good strength and spring properties and shows a high tarnish and high chemical corrosion resistance.

It is very suitable for electroplating, cladding and soldering.

#### **Typical Applications**

- Clips for pens, zip fasteners
- Connection wire, spring wire
- Spectacle frames, optical industry
- Fashion jewelry
- Model railway tracks
- Bridges for musical instruments
- Scrub sponges

#### Reference to Standards DIN EN 12166

| Mechanical Properties*                      |                 |           |           |  |
|---|-----------------|-----------|-----------|--|
| Sundwiger                                   |                 | ND12      | ND18      |  |
| Tensile<br>strength in<br>N/mm <sup>2</sup> | soft            | 370 - 480 | 420 - 540 |  |
|   | 1/4 hard        | 460 - 560 | 510 - 610 |  |
|   | 1/2 hard        | 560 - 660 | 600 - 700 |  |
|   | hard            | 660 - 780 | 700 - 800 |  |
|   | spring-<br>hard | min 780   | min 800   |  |
| Elongation A100 in %, soft                  |                 | > 30      |           |  |
| * Reference values                          |                 |           |           |  |

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| Physical Properties*                  |      |      |  |
|---------------------------------------|------|------|--|
| Sundwiger                             | ND12 | ND18 |  |
| Electrical conductivity in MS/m, hard | ≥4   | ≥2,9 |  |
| Thermal conductivity in W/(m*K)       | 35   | 25   |  |
| Density in g/cm³                      | 8.7  | 8.7  |  |
| * For information only                |      |      |  |

| Available Dimensions                  |                           |              |  |  |
|---------------------------------------|---------------------------|--------------|--|--|
| Rolled,<br>modified<br>square<br>wire | 5.1 mm<br>7.4 mm          | max. 1000 kg |  |  |
| Round<br>wire                         | 1.2 - 6.2 mm<br>in coils  | max. 200 kg  |  |  |
|                                       | 1.8 - 6.2 mm<br>on stands | max. 1500 kg |  |  |
|                                       | 0.5 - 3 mm<br>on reels    | max. 1000 kg |  |  |
|                                       | 1.5 - 3 mm<br>on acropaks | max. 400 kg  |  |  |
|                                       | On request:<br>in drums   | max. 400 kg  |  |  |

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of our knowledge but is given without any obligation on our part. Our liability is determined solely by the individual contract terms, in particular by our general conditions of sale. We reserve the right to make alterations especially where necessitated by technical developments