

## Ni1

### Comparable specifications

**ASME SFA A 5.14:** ERNi-1  
**EN ISO 18274:** Ni 2061 - NiTi3  
**BS 2901:** Pt 5 NA 32  
**Werkstoff Nr.:** 2.4155

### Description and applications\*

\* Illustrative, not-exhaustive list

This grade may be used for:

- welding of wrought and cast forms of commercially pure nickel alloy to itself;
  - welding of the clad side of nickel-clad steel and surfacing of steel;
  - welding of dissimilar metals (this alloy to stainless and carbon steels, to other nickel alloys, to copper and copper alloys);
  - overlaying steel;
  - use in high-grade plant/engineering (primarily for the petro-chemical industry).
- Ni1 contains enough titanium to control weld-metal porosity on welding processes.

### Weldable base materials\*

\* Illustrative, not-exhaustive list

Nickel 200 and 201

### All-weld metal mech. properties\*

\* For reference only values

**Tensile strength (Rm):**  $\geq 410 \text{ N/mm}^2$     **Yield Strength (Rp<sub>0.2</sub>):**  $\geq 200 \text{ N/mm}^2$   
**Elongation:**  $\geq 30\%$     **Charpy-V Impact (R.T.):**  $\geq 100 \text{ J}$

### Chemical composition\*

\* For reference only values

C	Mn	Fe	P	S	Si	Cu	Ni	Co	Ti	Al
max	max	max	max	max	max	max	93.00	max	2.00	max
0.05	0.80	0.70	0.030	0.010	0.75	0.20	min	1.00	3.50	1.00

### Standard packaging data\*

Welding process	Product type	Ø mm (inches)	Packing type	Weight kg (lbs)	Length mm (inches)
GMAW **	filler wire	0.80 - 1.20 (0.030 - 0.047)	spools BS300 / D300	15 (33)	n.a.
GTAW **	filler rod	1.60 - 4.00 (1/16 - 5/32)	cardboard boxes / tubes	5 (11)	1000 (39.4)
SAW **	filler wire	1.60 - 4.00 (1/16 - 5/32)	basket rims B450	25 (55)	n.a.


\* Other sizes and packing types are available upon request

\*\* GMAW: gas metal arc welding; GTAW: gas tungsten arc welding; SAW: submerged arc welding

### Marking

Each filler rod for GTAW welding is durably marked with an identification traceable to the unique product type. Welding filler materials wound on spools or in coils are durably marked on the coil or spool with an identification traceable to the unique product type.

The outside of each unit package is suitably labelled with at minimum the following data: grade, diameter, heat, lot no., classifications.

 marking type-testing performed and available.

Customized labels are available upon request.

### Type approvals

**TUV Nord** Kennblatt nr. 06329 (GMAW)    **TUV Nord** Kennblatt nr. 06330 (GTAW)

### Lot classification

All our productions fulfil the **Class S3** requirements acc. to EN ISO 14344.