

# TNI 425

TIG Welding Wire - Nickel Alloys

### Standards

AWS/ASME SFA - 5.14	ERNiCrMo3
EN ISO 18274 - A	SNi 6625 (NiCr22Mo9Nb)
TS EN ISO 18274 - A	SNi 6625 (NiCr22Mo9Nb)
DIN M. No.	2.4831

### Properties and Applications

Ni-Cr-Mo alloyed GTA (TIG) welding rod, depositing Ni-22Cr9Mo3,5Nb weld metal. TNI 425 is used for welding of highly corrosion resistant Ni-Cr-Mo alloys, like Alloy 625, 825 and similar alloys. Due to its good cryogenic toughness down to -196°C, preferred for welding of cryogenic nickel alloys, e.g. X1NiCrMoCuN25-20-7. In sulphur free atmospheres the weld metal is non-scaling 1200°C, in sulphurous atmospheres the weld metal can be used in service temperatures up to 500°C. It is also highly resistant stress corrosion cracking and pitting corrosion in phosphoric acid, organic acids, sea water and polluting environments. Weld metal is insensitive to cracking and very resistant to thermal shocks. Used for joining of dissimilar nickel alloys, joining dissimilar stainless steels, low alloyed steels to stainless steels or to nickel alloys, buffering of difficult to weld steels and repair welding of them. Stick Electrode : ENI 425MIG/MAG Welding Wire: MNI 425

### Typical Chemical Features of the Welding Wire

Type of Analysis	C	Si	Mn	Cr	Ni	Mo	Nb	Ti	P	S	Fe
Welding Wire	0.01	0.04	0.02	22.25	65.00	8.70	3.70	0.20	0.02	0.001	0.30

### Typical Mechanical Values of Weld Metal

Test Condition	Protection Gas	Yield Strength (N/mm <sup>2</sup> )	Tensile Strength (N/mm <sup>2</sup> )	Elongation A5 (%)	Charpy V-Notch Properties (J)
As welded	I1	570	760	39	20°C → 135 -196°C → 130

\* Chemical composition and mechanical properties are valid when using shielding gas .

### Application Information

**Welding Positions**

PA PB PC PD PE PF

**Polarity:**

**Protection Gas:**  
I1

**Welding Parameters & Efficiency**

Diameter x Length (mm)
1.60x1000
2.40x1000

### Packaging Information

Product Code	Diameter x Length (mm)	Quantity per Box	Box Gross Weight (kg)	Boxes per Outer Box	Outer Box Gross Weight (kg)	Packaging Type
26104GBKM2	1.60x1000	5 kg	5.30	4	21.40	Cardboard Tube
26104IBKM2	2.40x1000	5 kg	5.30	4	21.40	Cardboard Tube

### Storage & Re-Drying Information

Shouldn't be exposed to high statical load and impact.  
It should be stored in a dry room (relative humidity < 50%, room temperature > 20°C) on wooden pallets.