

## Classification

EN ISO 14343-A

AWS

W 25 22 2 N L

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## Characteristics and typical fields of application

GTAW rod for joining and surfacing applications on matching/similar steels. For weld cladding on high temperature steels and for fabrication joints on claddings.

Characterised by a low C-content, a limited Mo-content (for better Huey-test-resistance), a well-defined N-alloying as well as a high Ni-content to assure a fully austenitic structure (ferrite contents < 0.5 %). The corrosion rates in the Huey-test are max. 0.25 g/m<sup>2</sup>.h (10.89 mils/year). It is suited for urea plant components exposed to extremely severe corrosion at high pressures and temperatures. The weld deposit will exhibit superior resistance to boiling concentrated nitric acid (optimum condition: 60 – 80 % HNO<sub>3</sub>) when made to join components of the highest Huey test quality. It is also recommendable for weldments wetted by strong chloride solutions at high temperatures. The chromium and molybdenum percentages create good resistance to pitting from solutions containing chlorine ions. Further applications involve severe corrosive service in such industries as dyeing (leaching and dyeing baths), textiles, paper, leather, chemicals, pharmaceuticals, and rayon. Resistant to intercrystalline corrosion and wet corrosion up to +350 °C.

During welding an interpass temperature of 150 °C should be avoided.

## Base materials

1.4466 X1CrNiMoN25-22-2 and in combination with  
1.4465 X1CrNiMoN25-25-2, 1.4435 X2CrNiMo18-14-3

## Typical analysis of the RTIG rods (wt.-%)

	C	Si	Mn	Cr	Ni	Mo	N
wt.-%	≤ 0.014	0.1	6.0	25	22.5	2.2	0.12

## Mechanical properties of all-weld metal

Condition	Yield strength R <sub>p0,2</sub>	Tensile strength R <sub>m</sub>	Elongation A (L <sub>0</sub> =5d <sub>0</sub> )	Impact work ISO-V KV J
	MPa	MPa	%	+20 °C
u	≥ 320	≥ 510	≥ 25	≥ 80

u untreated, as welded

## Operating data

	Polarity: DC (-)	Shielding gas: 100 % Argon	Rod marking: front: ✦ 1.4465 back: W 25 22 2 NL	ø (mm) 1.6 2.0 2.4
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## Approvals

TÜV (10594.), CE