

**Classifications**
**EN ISO 14343-A**
**AWS A5.9 / SFA-5.9**
**W 22 9 3 N L**
**ER 2209**
**Characteristics and typical fields of application**

TIG rod and wire of W 22 9 3 N L / ER2209 type for manual and automatic welding. Resistant to intercrystalline corrosion and wet corrosion up to 250°C. Good resistance to stress corrosion cracking in chlorine and hydrogen sulfide-bearing environment. High Cr and Mo-contents provide resistance to pitting corrosion. For joining and surfacing work with matching and similar austenitic steel and cast steel grades.

**Typical analysis**


	C	Si	Mn	Cr	Ni	Mo	N	FN
wt.-%	0.02	0.4	1.7	22.5	8.8	3.2	0.15	46

**Mechanical properties of all-weld metal - typical values (min. values)**

Condition	Yield strength $R_{p0.2}$	Tensile strength $R_m$	Elongation A ( $L_0=5d_0$ )	Impact energy ISO-V KV J		
	MPa	MPa	%	20°C	-40°C	-46°C
u	600 (≥ 450)	720 (≥ 550)	33 (≥ 20)	110 (≥ 47)	100 (≥ 47)	≥ 47

u untreated, as-welded

**Operating data**

	Polarity	DC-	Dimension mm
	Shielding gas (EN ISO 14175)	I1 Ar + 2% N2 Ar + 30% He + 2% N2	0.8
			1.2
			1.6 × 1000
			2.0 × 1000
			2.4 × 1000
			3.2 × 1000

Suggested heat input is 0.5 – 1.5 kJ/mm, interpass temperature max. 150°C. Attention must be paid to embrittlement susceptibility of the parent metal. The root side corrosion resistance may be improved by use of nitrogen-based backing gas.

TÜV (03343), DB (43.132.97), ABS, DNV, LR, CE