

## Classifications

EN ISO 16834-A	EN ISO 16834-B	AWS A5.28	AWS A5.28M
W 55 6 I1 Mn3Ni1Mo	W 62A 6 I1 N2M2T	ER90S-G	ER62S-G

## Characteristics and typical fields of application

GTAW rod for high strength quenched and tempered fine-grained constructional steels. The rod is suited for joint welding in boiler, pressure vessel, pipeline, and crane construction as well as in structural steel engineering. Due to the precise addition of micro alloying elements NiMo 1-IG rod features excellent ductility and crack resistance in spite of its high strength. Good cryogenic impact energy down to  $-60\text{ }^{\circ}\text{C}$ , low hydrogen contents in the deposit are advantages of this rod.

## Base materials

Pipe steels and fine grained steels, quenched and tempered fine-grained steels  
 S460N, S460M, S460NL, S460ML, S460Q-S555Q, S460QL-S550QL, S460QL1-S550QL1, P460N, P460NH, P460NL1, P460NL2, L415NB, L415MB-L555MB, L415QB-L555QB,  
 alform 500 M, 550 M, aldur 500 Q, 500 QL, 500 QL1, aldur 550 Q, 550 QL, 550 QL1, 20MnMoNi4-5, 15NiCuMoNb5-6-4  
 ASTM A 572 Gr. 65; A 633 Gr. E; A 738 Gr. A; A 852; API 5 L X60, X65, X70, X80, X60Q, X65Q, X70Q, X80Q

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

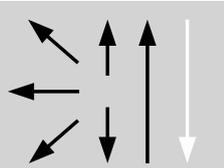
	C	Si	Mn	Mo	Ni
wt.-%	0.08	0.6	1.8	0.3	0.9

## Mechanical properties of all-weld metal

Condition	Yield strength $R_{p0,2}$	Tensile strength $R_m$	Elongation A ( $L_0=5d_0$ )	Impact work ISO-V KV J		
	MPa	MPa	%	+20 °C	-40 °C	-60 °C
u	<b>620</b> ( $\geq 550$ )	<b>700</b> (640 – 820)	<b>23</b> ( $\geq 18$ )	<b>140</b>	<b>110</b>	$\geq 47$

u untreated, as-welded – shielding gas Argon

## Operating data

	<b>Polarity:</b> DC (–)	<b>Shielding gases:</b> 100 % Argon	<b>Rod marking:</b> front: ✦ W Mn3Ni1Mo back: ER90S-G	<b>ø (mm)</b> 2.4
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Preheating and interpass temperature as required by the base metal.