

Classifications

AWS A5.28 / SFA-5.28	EN ISO 16834-A -	EN ISO 16834-A
ER110S-G	Mn3Ni2,5CrMo	W 69 6 11 Mn3Ni2.5CrMo

Characteristics and typical fields of application

GTAW rod for joint welding of high- strength fine- grained constructional steels with stringent requirement on low-temperature toughness down to -60°C. e.g in marine engineering for the manufacture of LPG tankers.

Base materials

Quenched and tempered fine-grained steels with high requirements for low-temperature toughness S620Q, S620QL, S690Q, S690QL, S620QL1-S690QL1, alform plate 620 M, 700 M, aldur 620 Q, 620 QL, 620 QL1, aldur 700 Q, 700 QL, 700 QL1 ASTM A 514 Gr. F, H, Q ; A 709 Gr. 100 Type B, E, F, H, Q ; A 709 Gr. HPS 100W

Typical analysis

	C	Si	Mn	Cr	Ni	Mo
wt.-%	0.08	0.6	1.4	0.3	2.5	0.4

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

Condition	Yield strength	Tensile strength	Elongation A	Impact energy ISO-V KV J		
	$R_{p0.2}$	R_m	($L_0=5d_0$)	20°C	-40°C	-60°C
	MPa	MPa	%			
u	750 (≥ 690)	830 (≥ 770 - 960)	22 (≥ 17)	160 (≥ 80)	80 (≥ 47)	(≥ 47)

u untreated, as-welded – shielding gas Argon

Operating data

	Polarity	DC –	Dimension mm
	Shielding gas (EN ISO 14175)	I1	1.0
	Rod marking	W NiCrMo2.5	1.6 x 1000
		ER110S-G	2.0 x 1000
			2.4 x 1000

Preheating and interpass temperature as required by the base metal.

Approvals

-