

Classifications

EN ISO 21952-A	EN ISO 14341	AWS A5.28 / SFA-5.28	
G ZMn4MoSi	G4Mo	Mixed Gas	CO ₂
		ER90S-D2	ER80S-D2

Characteristics and typical fields of application

Low-alloyed solid wire electrode for welding of low-alloyed and higher strength steel grades using CO₂ or Ar based mixed gases. Applications include boiler, tank, pipeline and reactor construction.

Base materials

P235GH – P460M, 16 Mo 3; S460N; S460MC;
A36; A161-94 Gr. T1; A182M; A204M; A217; A250M; A285, A335 Gr. P1; A515 Gr. 70; A516 Gr. 70

Typical analysis

	C	Si	Mn	Mo
wt.-%	0.09	0.65	1.8	0.52

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	%	-30°C
u1	(≥ 540)	(≥ 620)	(≥ 17)	(≥ 47)
s1	(≥ 510)	(≥ 600)	(≥ 19)	(≥ 27)
u2	(≥ 470)	(≥ 550)	(≥ 17)	(≥ 27)

u1 untreated, as welded - shielding gas M21

s1 stress relieved 610°C / 5h - shielding gas M21

u2 untreated, as welded - shielding gas CO₂

Operating data

	Polarity	DC+	Dimension mm
	Shielding gas (EN ISO 14175)	M1 – M3 C1	1.2

Recommended shielding gas: Ar/CO₂ mixtures; Ar/CO₂/O₂ mixtures; 100% CO₂

Approvals

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