

SG Ni1

CATEGORY	GMAW-GTAW Solid wires				
TYPE	Filler metal for fine grain steels and cold-tough steels.				
APPLICATIONS	Offshore requirements at working temperatures down to -60° C such as crane, vessel, rigs, platforms, pipelines for NACE requirements, boiler, tubing etc.				
PROPERTIES	Excellent impact properties at low temperatures due to the addition of Nickel and increased yield strenght above 460 N/mm2.				
CLASSIFICATION	AWS	A 5.28: ER 80S-Ni1			
	EN ISO	14341-A: G 50 6 MZ G3Ni1			
	DIN	8575: SG Ni1			
SUITABLE FOR	Materials	DIN	EN	ASTM	
	shipbuilding	A, B, D, E, AH 32 - EH 36	same	Typical	
	Unalloyed steels	St 33, St 37-2 - St 52-3	S185 - S355-S460	A 258 / A 516	
	boiler steels	H I, H III, 17Mn4, 19Mn5	P235GH, P355GH	A 662 / A 387	
	pipe steels	St 35.8, St 45.8	P235T1/T2, P460NL2	A 738 / A 612	
	-	StE 210.7 TM, StE 480.7 TM	L210 - L480MB	A 299	
	Fine grain steels	StE 255 to StE 460	S255 - S500 (NL1,2)	-	
	API-standard	X 42, X65, X 70	X 42, X65, X 70	-	
APPROVALS	CE approved				
WELDING POSITIONS:					
WELD METAL ANALYSIS %	C	Mn	Si	Ni	
	0.08	1.05	0.50	0.9	
MECHANICAL PROPERTIES	Heat Treatment	R _{p0,2} (N/mm ²)	R _m (N/mm ²)	A5 (%)	Impact Energy (J) ISO-V
	AW	> 470	> 560	> 24	-20°C: > 47, -60°C: > 47
AW: as welded					
WELDING PARAMETERS / PACKING	Welding Parameters			Packing	
D (mm)	Voltage (V)	Current (A)	spooling type	kg / spool	kg / pallet
0,8	15-24	60-200	D-200 / KD-300 / Drum	5 / 15 / 250	1000 / 1080 / 1000
1,0	16-32	80-300	D-200 / KD-300 / Drum	5 / 15 / 250	1000 / 1080 / 1000
1,2	18-34	120-380	D-200 / KD-300 / Drum	5 / 15 / 250	1000 / 1080 / 1000
REDRYING TEMPERATURE	not required				
GAS ACC. EN ISO 14175:	M21				