

E 7018-1

CATEGORY	SMAW Stick Electrodes
TYPE	Basic CTOD tested extra low hydrogen electrode for stick welding
APPLICATIONS	High strength steel constructions, offshore platforms, pipe welding, shipbuilding, vessel, rigs, drilling, repair welding etc.
PROPERTIES	The E 7018-1 is a low-hydrogen electrode suitable for highly stressed joints with very easy weldability and extreme high mechanical properties for steel and steel castings up to 610 N/mm ² tensile strength and fine-grained steels with increased yield strength. It is particularly suited for welding on AC and DC+. The E 7018-1 is suitable for steel with up to 0.6% carbon and has extreme low hydrogen content. HD < 3 ml/100gr. 7018-1 full fills the US Military specifications (M designation) according AWS against moisture pick up.

CLASSIFICATION	AWS	A 5.1: E 7018-1 H4R
	EN ISO	2560-A: E 42 4 B 32 H5 2560-B: E 49 18 A
	DIN	1913: E 51 55 B10

SUITABLE FOR	Base metal	DIN	EN	ASTM
	Shipbuilding	A, B, D, E, AH 32 till EH 36	-	A 131 / A 106
	Un alloyed steel	St 33, to St 52-3 to St 60.2	P235GH, P265GH, P295GH	A 515 / A 715 A 283 / A 285
	Boiler steels	HI, HII, 17Mn4, 19Mn5	-	A 414 / A 662
	Steel castings	GS-38 to GS-52	-	A 372 / A 369
	Pipe steels	St 35.8, St 45.8, St 52.4	P235T1/T2 - P355N	A 210 / A 516
	-	StE 210.7TM - StE 380.7TM	L210 - L380	A 255 / A 333
	Fine grain steels	StE 255 till StE 355	S255, S355, S420	A 350 / A 612
	API steels	X42	X42	
	W.Nrs: 1.0035 to 1.0060, 1.0461 to 1.0562, 1.0462 to 1.0565, 1.0345, 1.0425, 1.0481, 1.0482, 1.0308 to 1.0581, 1.0307 to 1.0582, 1.0440, 1.0472, 1.0475, 1.0476, to 1.1830, 1.0416 to 1.0551			

APPROVALS	TUV (12532.00), CE approved
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WELDING POSITIONS:	
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WELD DEPOSIT WEIGHT %	C	Mn	Si	Cr	Ni	Mo	P	S
	0.08	1.00	0.60	-	-	-	<0.015	<0.015

MECHANICAL PROPERTIES	Heat Treatment	R _{p0.2} (N/mm ²)	R _m (N/mm ²)	A ₅ (%)	Impact Energy (J) ISO-V			Hardness HRC / HV
	AW	>440	510-610	>24	-20°C	-40°C	-60°C	
					>47			

AW: as welded

Welding Parameters		AC (OCV>70V) and DC+	Packing		
D (mm)	Length (mm)	Current (A)	kg / can	kg / 6pack	kg / 1000
2,0	300	40-70	2,5	15	12.5
2.5	300	65-90	2.5	15	19.8
3.2	350	110-140	2.6	15.6	36
4.0	350/450	140-180	2.6/3.3	15.6/19.8	52/67
5.0	450	180-230	3.6	21.6	106
6.0	450	240-290	3.6	21.6	150

REDRYING TEMPERATURE 400°C / 1hr
