

Lincoln® 7018-1

CLASSIFICATION

AWS A5.1	E7018-1 H4	A-Nr	1
ISO 2560-A	E 42 5 B 42 H5	F-Nr	4
		9606 FM	1

GENERAL DESCRIPTION

Basic very low hydrogen electrode
Excellent for general purpose welding
Good impact values down to -46°C

WELDING POSITIONS (ISO/ASME)



PA/1G



PB/2F



PC/2G



PF/3Gu



PE/4G

CURRENT TYPE

AC / DC + / -

APPROVALS

ABS	BV	LR
4Y40H5	4Y40H5	4Y40MH5

CHEMICAL COMPOSITION (W%), TYPICAL, ALL WELD METAL

C	Mn	Si	P	S
0.06	1.3	0.30	0.025	0.025

MECHANICAL PROPERTIES, TYPICAL, ALL WELD METAL

	Condition	Yield strength (N/mm ²)	Tensile strength (N/mm ²)	Elongation (%)	Impact ISO-V(J)
					-50°C
Typical values	AW	≥430	490-550	≥24	≥47

PACKAGING AND AVAILABLE SIZES

	Diameter (mm)	Length (mm)						
			2.5	3.2	3.2	4.0	4.0	5.0
			350	350	450	350	450	450
Carton	Net weight/unit (kg)		4.1	4.2	5.5	4.3	5.8	5.5
Vaccum Pack	Net weight/unit (kg)		2.0	1.9	2.5	2.0	2.7	-

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EXAMPLES OF MATERIALS TO BE WELDED

Steel grades/Code	Type
General structural steels	
EN 10025	S185, S235, S275, S355
Ship plates	
ASTM A 131	Grade A, B, D, AH32 to EH40
Cast steels	
EN 10213-2	GP240R
Pipe material	
EN 10208-1	L210, L240, L290, L360
EN 10208-2	L240, L290, L360, L415
API 5LX	X42, X46, X52, X60
EN 10216-1	P235T1, P235T2, P275T1
EN 10217-1	P275T2, P355N
Boiler & pressure vessel steels	
EN 10028-2	P235GH, P265GH, P295GH, P355GH
Fine grained steels	
EN 10025 part 3	S275, S355, S420
EN 10025 part 4	S275, S355, S420

CALCULATION DATA

Sizes Diam. x length (mm)		Current range (A)	Current type	Arc time - per electrode at max. current - (S)*	Energy E(kJ)	Dep. rate H(kg/h)	Weight/ 1000 pcs (kg)	Electrodes/ kg weldmetal B	kg electrodes/ kg weldmetal 1/N
2.5x350		65-95	DC+	56	-	0,9	-	74	1,56
3.2x350		100-135	DC+	62	-	1,3	-	42	1,53
3.2x450		85-135	DC+	77	-	1,4	-	34	1,48
4.0x350		110-210	DC+	66	-	1,9	-	27	1,42
4.0x450		110-210	DC+	80	-	2,0	-	22	1,50
5.0x450		170-240	DC+	105	-	2,4	-	14	1,42

*Stub end 35mm

WELDING PARAMETERS, OPTIMUM FILL PASSES

Diameter (mm)	Welding positions				
	PA/1G	PB/2F	PC/2G	PF/3Gup	PE/4G
2.5	90 A	90 A	85 A	75 A	80 A
3.2	130 A	130 A	120 A	115 A	115 A
4.0	170 A	170 A	150 A	150 A	150 A
5.0	220 A	220 A	210 A	190 A	