

# Lincoln® 7018-1

## CLASSIFICATION

<b>AWS A5.1</b>	E7018-1 H4	<b>A-Nr</b>	1
<b>ISO 2560-A</b>	E 42 5 B 42 H5	<b>F-Nr</b>	4
		<b>9606 FM</b>	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 <sup>2</sup> )	Tensile strength (N/mm <sup>2</sup> )	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
<b>Carton</b>	<b>Net weight/unit (kg)</b>	4.1	4.2	5.5	4.3	5.8	5.5
<b>Vaccum Pack</b>	<b>Net weight/unit (kg)</b>	2.0	1.9	2.5	2.0	2.7	-

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## EXAMPLES OF MATERIALS TO BE WELDED

Steel grades/Code	Type
<b>General structural steels</b>	
EN 10025	S185, S235, S275, S355
<b>Ship plates</b>	
ASTM A 131	Grade A, B, D, AH32 to EH40
<b>Cast steels</b>	
EN 10213-2	GP240R
<b>Pipe material</b>	
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
<b>Boiler &amp; pressure vessel steels</b>	
EN 10028-2	P235GH, P265GH, P295GH, P355GH
<b>Fine grained steels</b>	
EN 10025 part 3	S275, S355, S420
EN 10025 part 4	S275, S355, S420

## CALCULATION DATA

Sizes		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
Diam. x length (mm)	Current range (A)							
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	