

CLASSIFICATION

AWS A5.1	E7018 H4R	A-Nr	1
ISO 2560-A	E 42 3 B 3 2 H5	F-Nr	4
		9606 FM	1

GENERAL DESCRIPTION

Basic very low hydrogen electrode (HDM<4ml/100g)

Recovery 120%

Excellent weldability even on AC in all positions

Good impact values down to -30°C

Excellent X-ray soundness

WELDING POSITIONS (ISO/ASME)



PA/1G



PB/2F



PC/2G



PF/3Gu



PH/5Gu



PE/4G

CURRENT TYPE

AC / DC +/-

APPROVALS

ABS	BV	DNV	LR	GL	TÜV
3H,3Y	3,3YH	3YH5	3,3YH5	3YH	+

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

C	Mn	Si	HDM
0.08	1.2	0.5	4 ml/100 g

MECHANICAL PROPERTIES, TYPICAL, ALL WELD METAL

	Condition	Yield strength (N/mm ²)	Tensile strength (N/mm ²)	Elongation (%)	Impact ISO-V(J)	
					-20°C	-29°/-30°C
Required: AWS A5.1		min. 400	min. 490	min. 22		min. 27
ISO 2560-A		min. 420	500-640	min. 20		min. 47
Typical values	AW	540	600	26	150	80

PACKAGING AND AVAILABLE SIZES

	Diameter (mm)	Length (mm)	2.5				3.2	
			3.2	4.0	4.0	5.0	4.0	4.0
Carton + PE foil	Pieces / unit		135	120	120	85	85	55
	Net weight/unit (kg)		2.5	4.5	6.0	4.6	5.9	6.0

Identification Imprint: 7018 / BASO 120

Tip Color: silver

Baso[®] 120: rev. C-EN26-01/02/16

Baso[®] 120

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 EH36
Cast steels	
EN 10213-2	GP240R
Pipe material	
EN 10208-1	L210, L240, L290, L360
EN 10208-2	L240, L290, L360, L415, L445
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	Energy	Dep. rate	Weight/ 1000 pcs (kg)	Electrodes/ kg weldmetal/ B	kg electrodes/ kg weldmetal 1/N
			- per electrode at max. current - [S]*	E[kJ]	H[kg/h]			
2.5x350	60-80	AC	55	121	0.8	19.1	85	1.61
3.2x350	90-140	AC	62	229	1.3	37.1	44	1.64
3.2x450	90-140	AC	74	275	1.5	50.1	33	1.67
4.0x350	120-160	AC	63	338	1.8	54.4	32	1.72
4.0x450	120-160	DC+	85	391	1.9	69.5	22	1.52
5.0x450	160-240	AC	99	616	2.6	108.8	14	1.54
5.0x450	160-240	DC+	100	625	2.6	108.8	14	1.52

*Stub end 35mm

WELDING PARAMETERS, OPTIMUM FILL PASSES

Diameter (mm)	Welding positions				
	PA/1G	PB/2F	PC/2G	PF/3Gup	PE/4G
2.5	80A	80A	85A	85A	80A
3.2	145A	120A	140A	120A	125A
4.0	175A	155A	170A	165A	145A
5.0	235A	220A	210A	195A	

REMARKS / APPLICATION ADVICE

Dry electrodes 2-4h 350 ±25°C after removal from cardboard boxes