

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)						
		2.5	3.2	3.2	4.0	4.0	5.0
	Length (mm)	350	350	450	350	450	450
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