

## Basic electrode

### Classification

AWS A5.1-91 : E7018 H8  
 EN 499-94 : E 46 3 B 32 H5

### General description

**Basic low hydrogen electrode**  
**Very good weldability, in all positions**  
**Almost no spatter, nice wetting and full weld pool control**  
**Good impact properties down to -30°C**  
**Excellent X-ray toughness**

### Welding positions



ISO/ASME PA/1G PB/2F PC/2G PF/3G up PE/4G

### Current type

DC electr. + / -

### Approvals

ABS	BV	DB	DNV	GL	LR	TÜV
Pending	Pending	Pending	Pending	Pending	Pending	Pending

### Chemical composition (w%), typical, all weld metal

C	Mn	Si	P	S	H <sub>DM</sub>
0.09	1.1	0.6	0.015	0.01	5 ml/100

### Mechanical properties, all weld metal

	Condition	Yield strength (N/mm <sup>2</sup> )	Tensile strength (N/mm <sup>2</sup> )	Elongation (%)	Impact ISO-V (J)		
					-20 °C	-29 °C	-30 °C
Required: AWS A5.1-91		min. 399	min. 482	min. 22	min. 27		
EN 499-94		min. 460	530 - 680	min. 20	min. 47		
Typical values	AW	550	635	25	115	85	

### Packaging, available sizes and identification

	Diameter (mm)	Length (mm)	3.2				4.0	
			350	350	450	350	450	5.0
Unit: box	Pieces / unit (nominal)		xx	xx	xx	xx	xx	xx
	Net weight / unit (kg)		xx	xx	xx	xx	xx	xx

**Identification** Imprint: 7018/Baso 49 Tip colour: none

**Baso<sup>®</sup> 49: rev. EN 15**

## Materials to be welded

Steel	Code	Type
General structural steel	EN 10025	S185, S235, S275, S355
Ship plates	ASTM A131	Grade A, B, D, AH32 to EH40
Cast steel	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/ EN 10217-1	P235T1, P235T2, P275T1 P275T2, P355N
Boiler & pressure vessel steel	EN 10028-2	P235GH, P265GH, P295GH, P355GH
	EN 10113-2 EN 10113-3	S275, S275, S355, S420 S275, S355, S420

## Calculation Data

Sizes Diam. x length (mm)	Current range (A)	Current type (s)*	Arc time - per electrode at max. current - E(kJ)	Energy H(kg/h)	Dep.rate - (kg)	Weight/ 1000 pcs. B	Electrodes/ kg weldmetal 1/N	kg Electrodes/ kg weldmetal
2.5 x 350	70 - 80	DC+	58	120	0.85	23.1	73	1.7
3.2 x 350	110 - 130	DC+	68	194	1.3	36.8	41	1.5
4.0 x 450			98	429	1.8	69.5	20	1.4
5.0 x 450	160 - 240	DC+	117	619	2.3	107.3	13	1.4

\* stub end 35 mm

## Welding parameters, optimum fill passes

Welding position Diameter (mm)	PA/1G Current (A)	PB/2F	PC/2G	PF/3G up	PE/4G
2.5	95	95	90	90	85
3.2	140	130	130	120	120
4.0	180	180	180	160	150
5.0	230	230	230	180	

## Application Advice

Electrodes after removal from cardboard boxes redry 2-4h 350 ± 25°C