

Baso[®] 48SP

CLASSIFICATION

AWS A5.1	E 7018-1 H8	A-Nr	1
ISO 2560-A	E 46 3 B 3 2 H10*	F-Nr	4
* also complies to E 46 3 BR 3 2 H10		9606 FM	1

GENERAL DESCRIPTION

Rutile basic coated electrode with excellent start- and restart properties
 Weldable on AC and DC
 Stable arc, also at low amperage
 Popular at welding schools
 Min. 60 Volt is recommended
 Good mechanical and impact properties down to -30°C (>47 J)
 Low hydrogen content (HDM < 8 ml/100g)

WELDING POSITIONS (ISO/ASME)



PA/1G



PB/2F



PC/2G



PF/3Gu



PE/4G

CURRENT TYPE

∅ 2.5 AC / DC + / -
 ∅ 3.2 AC / DC +
 ∅ 4.0 AC / DC +
 ∅ 5.0 AC / DC

APPROVALS

ABS	BV	DNV	LR	TÜV
3YH10	HHH	3YH5	3,3YH10	+

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

C	Mn	Si	HDM
0.075	1.4	0.45	7 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	-30°C	-46°C
Required: AWS A5.1 ISO 2560-A		min. 400 min. 460	min. 490 530-680	min. 22 min. 20			min. 27
Typical values	AW	590	640	25	90	min. 47 60	

PACKAGING AND AVAILABLE SIZES

	Diameter (mm)	Length (mm)				
		2.5	3.2	3.2	4.0	4.0
		350	350	450	350	450
Carton + PE foil	Pieces / unit	125	78	78	50	50
	Net weight/unit (kg)	2.5	2.6	3.3	2.5	3.4
SRP	Pieces / unit	44	51	-	27	-
	Net weight/unit (kg)	0.9	1.8	-	1.4	-

Identification Imprint: 7018-1-BASO 48SP Tip Color: green

Baso[®] 48SP+ rev. C-EN25-12/05/16

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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 EH36
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, S460

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	50-85	AC	48	104	0.9	19.4	82	1.6
3.2x450	85-135	AC	75	273	1.1	41.0	42	1.72
4.0x450	135-190	AC	95	487	1.6	64.6	24	1.55

*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	85A	85A	85A	80A
3.2	120A	115A	115A	115A	110A
4.0	170A	180A	180A	180A	160A

REMARKS / APPLICATION ADVICE

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