

# Baso<sup>®</sup> 48SP

## CLASSIFICATION

AWS A5.1	E 7016-H8	A-Nr	1
ISO 2560-A	E 38 3 B 12 H10	F-Nr	4
		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

RMRS	LR	TÜV
3YHH	3YmH10	+

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

C	Mn	Si	P	S
0.06	0.9	0.7	≤ 0.020	≤ 0.015

## 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)		
				-20°C	-30°C	
Required: AWS A5.1 ISO 2560-A Typical values	AW	≥ 380	530-680 470-600	25	150	60

## PACKAGING AND AVAILABLE SIZES

	Diameter (mm)	2.5		3.2		4.0	
		350	350	450	350	450	
CBOH	Pieces / unit	100	55	55	40	40	
	Net weight/unit (kg)	2	1.8	2.3	2	2.6	
VPMD	Pieces / unit	100	55	-	-	-	
	Net weight/unit (kg)	2	1.8	-	-	-	

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

Baso<sup>®</sup> 48SP+; rev. C-EN25-26/07/21

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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 EH36
<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
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
EN 10025 part 4	S275, S355

## CALCULATION DATA

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