

ESB 48

Basic Coated Electrode - NON-ALLOYED STEELS

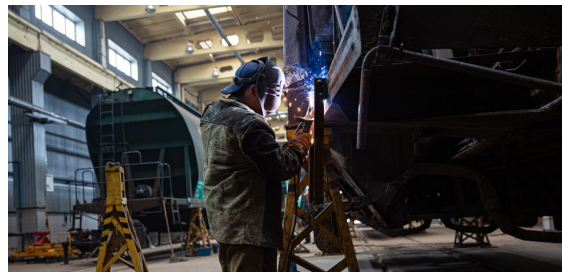
Standards	
AWS/ASME SFA - 5.1	E7018 H8
EN ISO 2560 - A	E 42 3 B 42 H10
TS EN ISO 2560 - A	E 42 3 B 42 H10

Approvals & Certificates		
LR	RINA	TL
RMRS	CE	HAKC
ABS	CWB	ClassNK
TSE	DNV	BV
TUV	DB	

Materials	
EN	DIN
S185 - S355J2	St 33- St 52.3
P235GH, P265GH	H I, H II
P295GH, P355GH	17Mn4, 19Mn5
P235TR2 - P355T2	St37.4 - St 52.4
P235G1TH, P255G1TH	StE 35.8 - StE 45.8
L210 - L360NB	StE 210.7 - StE 360.7
L290MB - L360MB	StE 290.7 TM - StE 360.7 TM
S255N - S420N	StE 255- StE 420
GE 200, GE 240, GE 260	GS 38, GS 45, GS 52
	AH 32, EH 36
	A, B, D, E

Properties and Applications

Suitable for welding fabrication of dynamically loaded steel constructions, bridge, shipbuilding, pipe-line, pressure vessels, tanks, boiler and machines where high toughness is required. Weld metal recovery is approx. 115%. Smooth and clean welds merging into base metal without undercuts. Good gap bridging properties. Welds are of X-ray quality. It is suited for depositing buffer layers on higher carbon steels.



Typical Chemical Values of Weld Metal

Type of Analysis	C	Si	Mn
Weld Deposit	0.08	0.40	1.10

Typical Mechanical Values of Weld Metal

Test Condition	Yield Strength (N/mm ²)	Tensile Strength (N/mm ²)	Elongation A5 (%)	Charpy V-Notch Properties (J)	
As welded	460	560	28	-30°C → 140	-40°C → 90

Application Information

Welding Positions

PA

PB

PC

PD

PE

PF

Welding Parameters & Efficiency

Diameter x Length (mm)	Current (A)	Weld Deposit(Kg)/1Kg Consumed Electrode	Number of Electrodes/1Kg Weld Deposit	Weld Metal Deposition Rate (Kg/h)	Efficiency(%)

Polarity:

= +

3.25x450	90-140	0,64	33	1,22	122
4.00x350	140-190	0,64	28	1,64	123
5.00x350	200-250	0,69	16	2,31	123
5.00x450	200-250	0,69	13	2,31	123
4.00x450	140-190	0,67	21	1,68	123
6.00x450	260-340	0,69	8	2,68	123
2.50x350	60-90	0,61	70	0,79	126
2.00x350	50-70	0,61	84	0,63	126
3.25x350	90-150	0,64	43	1,28	128

Packaging Information

PRODUCT CODE	Diameter x Length (mm)	Quantity per box (approx.)	Box Net Weight (kg)	NUMBER OF BOXES IN PACKAGE	Package Net Weight (kg)	Packaging Type
11204EBEM2	2.00x350	66 pcs	1.0	10	11.3	Plastic Box
11204EJEM2	2.00x350	160 pcs	2.5	6	15.5	VAC Box
11204EPEM2	2.00x350	64 pcs	1.0	12	12.8	Cardboard Box
11204EQEM2	2.00x350	160 pcs	2.5	6	15.4	Cardboard Box
11204EREM2	2.00x350	256 pcs	4.0	3	12.4	Cardboard Box
11204HBEM2	2.50x350	43 pcs	1.0	10	11.3	Plastic Box
11204HJEM2	2.50x350	107 pcs	2.5	6	15.5	VAC Box
11204HPEM2	2.50x350	43 pcs	1.0	12	12.8	Cardboard Box
11204HQEM2	2.50x350	107 pcs	2.5	6	15.4	Cardboard Box
11204HREM2	2.50x350	213 pcs	5.0	3	15.4	Cardboard Box
11204NBEM2	3.25x350	28 pcs	1.0	12	0.0	Plastic Box
11204NJEM2	3.25x350	69 pcs	2.5	6	15.5	VAC Box
11204NPEM2	3.25x350	27 pcs	1.0	12	12.8	Cardboard Box
11204NQEM2	3.25x350	69 pcs	2.5	6	15.4	Cardboard Box
11204NREM2	3.25x350	137 pcs	5.0	3	15.4	Cardboard Box
11204PJEM2	3.25x450	53 pcs	2.5	6	15.6	VAC Box
11204PSEM2	3.25x450	138 pcs	6.5	3	19.9	Cardboard Box
11204QJEM2	4.00x350	45 pcs	2.5	6	15.5	VAC Box
11204QREM2	4.00x350	91 pcs	5.0	3	15.4	Cardboard Box
11204SJEM2	4.00x450	34 pcs	2.5	6	15.6	VAC Box
11204SREM2	4.00x450	69 pcs	5.0	3	15.4	Cardboard Box
11204SSEM2	4.00x450	90 pcs	6.5	3	19.9	Cardboard Box
11204TJEM2	5.00x350	28 pcs	2.5	6	15.5	VAC Box
11204VREM2	5.00x450	47 pcs	5.0	3	15.4	Cardboard Box
11204VSEM2	5.00x450	61 pcs	6.5	3	19.9	Cardboard

						Box
11204XSEM2	6.00x450	40 pcs	6.5	3	19.9	Cardboard Box

Storage & Re-Drying Information

It can be dried maximum 5 times.
It has to be dried at 350°C for 2 hours.