

# ESB 44

Basic Coated Electrode - Non Alloyed Steels

Standards	
AWS/ASME SFA - 5.1	E7016 H8
EN ISO 2560 - A	E 38 2 B 12 H10
TS EN ISO 2560 - A	E 38 2 B 12 H10

**Properties and Applications**

Suitable for fabrication and repair welding of dynamically loaded steel constructions, machines and agricultural equipments, workshop and maintenance welding. Smooth and clean welds, blending into base metal without undercuts. Excellent gap bridging properties. The double covering of this electrode produces a stable, concentrated and directed arc, thus being ideally suited for root pass and positional welding and is suited for AC welding. Welds are of X-ray quality.

Approvals & Certificates		
DB CE	DNV-GL TSE	TUV GOST

Materials	
Width	DIN
S185 - S355J0	St 33- St 52.3
P235GH, P265GH	H I, H II
P295GH	17Mn4
P235TR2 - P355T2	St37.4 - St 52.4
P235G1TH, P255G1TH	StE 35.8 - StE 45.8
L210 - L360NB	StE 210.7 - StE 360.7
S255N - S355N	StE 255- StE 355
GE 200, GE 240, GE 260	GS 38, GS 45, GS 52
	AH 32, EH 36
	A, B, D, E

Typical Chemical Values of Weld Metal			
Type of Analysis	C	Si	Mn
Weld Deposit	0.06	0.65	1.00

Typical Mechanical Values of Weld Metal					
Test Condition	Yield Strength (N/mm <sup>2</sup> )	Tensile Strength (N/mm <sup>2</sup> )	Elongation A5 (%)	Charpy V-Notch Properties (J)	
As welded	450	550	25	-20°C → 70	-30°C → 55

**Application Information**

Welding Positions: PA PB PC PD PE PF

Polarity:

Diameter x Length (mm)	Current (A)
2.00x350	40-60
2.50x350	60-90
3.25x350	70-140
3.25x450	70-130
4.00x350	130-180
4.00x450	130-180
5.00x450	180-250

Packaging Information						
Product Code	Diameter x Length (mm)	Quantity per Box	Box Gross Weight (Kg)	Boxes per Outer Box	Outer Box Gross Weight (Kg)	Packaging Type
11202ERAM1	2.00x350	250 AD	3.24	4	13.00	Cardboard Box
11202EREM2	2.00x350	394 AD	5.07	3	15.40	Cardboard Box
11202HKEM2	2.50x350	126 AD	2.54	6	15.50	VAC Box
11202HQEM2	2.50x350	126 AD	2.54	6	15.40	Cardboard Box

11202HRAM1	2.50x350	160 AD	3.25	4	13.00	Cardboard Box
11202HREM2	2.50x350	251 AD	5.06	3	15.40	Cardboard Box
11202N9EM1	3.25x350	15 AD	0.36	30	11.10	Blister
11202NKEM2	3.25x350	76 AD	2.54	6	15.50	VAC Box
11202NQAM1	3.25x350	90 AD	3.04	4	12.20	Cardboard Box
11202NQEM2	3.25x350	76 AD	2.54	6	15.40	Cardboard Box
11202NREM2	3.25x350	151 AD	5.06	3	15.40	Cardboard Box
11202PKEM2	3.25x450	59 AD	2.56	6	15.60	VAC Box
11202PSAM1	3.25x450	155 AD	6.64	2	13.30	Cardboard Box
11202PSEM2	3.25x450	153 AD	6.58	3	19.90	Cardboard Box
11202QKEM2	4.00x350	49 AD	2.54	6	15.50	VAC Box
11202SKEM2	4.00x450	37 AD	2.56	6	15.60	VAC Box
11202SSAM1	4.00x450	100 AD	6.77	2	13.50	Cardboard Box
11202SSEM2	4.00x450	97 AD	6.58	3	19.90	Cardboard Box
11202VKEM2	5.00x450	25 AD	2.56	6	15.60	VAC Box
11202VSAM1	5.00x450	60 AD	6.20	2	12.40	Cardboard Box
11202VSEM2	5.00x450	64 AD	6.58	3	19.90	Cardboard Box

#### Storage & Re-Drying Information

It can be dried maximum 5 times.  
 It should be stored in a dry room (relative humidity < 50%, room temperature > 20°C) on wooden pallets.  
 It has to be dried at 350°C for 2 hours.