ESB 50

Basic Coated Electrode - Non Alloyed Steels

Standards

AWS/ASME SFA - 5.1	E7018 H8
EN ISO 2560 - A	E 42 4 B 42 H5
TS EN ISO 2560 - A	E 42 4 B 42 H5

Approvals & Certificates

CE	UKCA-DoP	TL
DB	CE-DoP	DNV
BV	UKCA	ABS
TUV		

Materials

EN	DIN
S185 - S355J0	St 33- St 52.3
E295	St 50.2
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 heavy steel constructions, bridge, shipbuilding, pipe line, pressure vessels, tanks, boiler and machines where mechanical properties are required. Weld metal exhibits good toughness properties down to -50°C and produce tough and crack-free welded joints even on steels having a carbon content of up to 0.4%. Weld metal recovery amounts to approx. 120%. Welds are of X-ray quality. Electrode is suitable for depositing buffer layers on higher carbon steels.



Typical Chemical Values of Weld Metal (%)

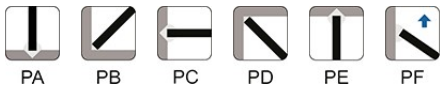
Type of Analysis	C	Si	Mn
Weld Deposit	0.07	0.35	1.45

Typical Mechanical Values of Weld Metal

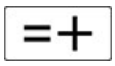
Test Condition	Yield Strength (N/mm²)	Tensile Strength (N/mm²)	Elongation A5 (%)	Charpy V-Notch Properties (J)	
As welded	470	560	29	-30°C → 100	-50°C → 60

Application Information

Welding Positions



Polarity:



Welding Parameters & Efficiency

Diameter x Length (mm)	Current (A)
6.00x450	260-340
2.50x350	60-90
3.25x350	90-150
4.00x450	140-190
2.00x300	40-60
3.25x450	90-140
2.00x350	40-60
4.00x350	140-190
5.00x450	190-250

Packaging Information

Product Code	Diameter X Length (mm)	Pieces per Box (~)	Weight Of The Box (kg)	Boxes Per Package	Weight Of The Package	Packaging Type
11205EBEM2	2.00x350	67	1.0	10	11.3	Plastic Box
11205EREM2	2.00x350	267	4.0	3	12.4	Cardboard Box
11205HBEM2	2.50x350	45	1.0	10	11.3	Plastic Box
11205HJEM2	2.50x350	111	2.5	6	15.5	VAC Box
11205HQEM2	2.50x350	111	2.5	6	15.4	Cardboard Box
11205HREM2	2.50x350	223	5.0	3	15.4	Cardboard Box
11205NBEM2	3.25x350	28	1.0	10	11.3	Plastic Box
11205NJEM2	3.25x350	70	2.5	6	15.5	VAC Box
11205NQEM2	3.25x350	70	2.5	6	15.4	Cardboard Box
11205NREM2	3.25x350	141	5.0	3	15.4	Cardboard Box
11205PSEM2	3.25x450	144	6.5	3	19.9	Cardboard Box
11205QJEM2	4.00x350	47	2.5	6	15.5	VAC Box
11205QQEM2	4.00x350	47	2.5	6	15.4	Cardboard Box
11205QREM2	4.00x350	94	5.0	3	15.4	Cardboard Box
11205SSEM2	4.00x450	95	6.5	3	19.9	Cardboard Box
11205VSEM2	5.00x450	62	6.5	3	19.9	Cardboard Box
11205XSEM2	6.00x450	44	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.