

ESR 11

Rutile-Cellulosic Coated Electrode - Non Alloyed Steels

Standards	
AWS/ASME SFA - 5.1	E6013
EN ISO 2560 - A	E 38 0 RC 11
TS EN ISO 2560 - A	E 38 0 RC 11

Approvals & Certificates		
CE-DoP	DB	CE
UKCA-DoP	UKCA	TUV
HAKC	TSE	BV

Materials	
EN	DIN
S185 - S355J0	St 33 - St 52-3
P235GH, P265GH	H I, H II
P295GH	17Mn4
P235TR2 - P355T2	St 37.4 - St 52.4
P235G1TH, P255G1TH	St 35.8, St 45.8
L210 - L360NB	StE 210.7 - StE 360.7
S255N - S355N	StE 255- StE 355
GE 200, GE 240	GS 38, GS 45
	AH 32, EH 36
	A, B, D

Properties and Applications

Especially suitable for welding in sheets thinner than 5 mm, galvanized sheets and tubes, primer painted, painted and slightly rusty steels and in production of tanks and boilers, tube installations. Very easily operated in positional welding, including vertically-down. Good gap-bridging. Smooth arc, well suited for tack-welding due to its easy arc striking and re-striking properties. Possible to use equally well both with AC and DC. Welds are smooth, slightly concave and blending into base metal without undercutting. Slag is self-releasing.



Typical Chemical Values of Weld Metal

Type of Analysis	C	Si	Mn
Weld Deposit	0.10	0.45	0.70

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	480	550	25	0°C → 55

Application Information

Welding Positions



Polarity:



Welding Parameters & Efficiency

Diameter x Length (mm)	Current (A)
4.00x350	130-180
2.00x350	40-60
4.00x450	140-180
3.25x350	90-130
5.00x450	180-230
2.50x350	60-85
5.00x350	180-230
3.25x450	90-120
2.00x300	40-60
2.50x300	60-85

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
11100DQEM2	2.00x300	165	1.8	10	18.3	Cardboard Box
11100EBEM2	2.00x350	80	1.0	12	13.5	Plastic Box
11100EPEM2	2.00x350	79	1.0	12	12.8	Cardboard Box
11100EQEM2	2.00x350	198	2.5	6	15.4	Cardboard Box
11100EREM2	2.00x350	395	5.0	3	15.4	Cardboard Box
11100HBEM2	2.50x350	54	1.0	12	13.6	Plastic Box
11100HDEM2	2.50x350	136	2.5	3	8.1	Plastic Box
11100HEEM2	2.50x350	272	5.0	3	15.8	Plastic Box
11100HPEM2	2.50x350	54	1.0	12	13.5	Cardboard Box
11100HQEM2	2.50x350	136	2.5	6	15.4	Cardboard Box
11100HREM2	2.50x350	272	5.0	3	15.3	Cardboard Box
11100NBEM2	3.25x350	34	1.0	12	13.5	Plastic Box
11100NDEM2	3.25x350	84	2.5	3	8.1	Plastic Box
11100NEEM2	3.25x350	168	5.0	3	15.8	Plastic Box
11100NPEM2	3.25x350	34	1.0	12	12.8	Cardboard Box
11100NQEM2	3.25x350	84	2.5	6	15.4	Cardboard Box
11100NREM2	3.25x350	168	5.0	3	15.3	Cardboard Box
11100QBEM2	4.00x350	22	1.0	10	11.3	Plastic Box
11100QQEM2	4.00x350	55	2.5	6	15.4	Cardboard Box
11100QREM2	4.00x350	109	5.0	3	15.3	Cardboard Box
11100SREM2	4.00x450	89	5.0	3	15.4	Cardboard Box
11100SSEM2	4.00x450	115	6.5	3	19.9	Cardboard Box
11100TQEM2	5.00x350	37	2.5	6	15.4	Cardboard Box
11100TREM2	5.00x350	73	5.0	3	15.4	Cardboard Box
11100VQEM2	5.00x450	28	2.5	6	15.5	Cardboard Box
11100VSAM1	5.00x450	75	6.6	4	26.9	Cardboard Box

11100VSEM2	5.00x450	74	6.5	3	19.9	Cardboard Box
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Storage & Re-Drying Information

Generally not required. If required, redry for 1 hour at 110°C.