Selectarc 307B

High manganese stainless
Basic coated Electrode

Classification

AWS A5.4 : ~E307-15
ISO 3581-A : E 18 8 Mn B 3 2

EN 1600 : E 18 8 Mn B 3 2

Description & Applications

Austenitic (non-magnetic) basic coated stainless steel electrode for joining and overlaying on manganese steels (up to 14% Mn) and high sulphur and phosphorus containing steels, also for joining dissimilar steels, construction steels to stainless steels, for cushion layers prior hardfacing. Repairing of pieces submitted to shocks or wear by friction. Stable arc ease of use, good slag removal, nice aspect of the beads.

Main applications: For civil engineering, railways, cement works (screening steels, digger buckets, crusher jaws...)

Base materials

Screening steels
Tools steels*
Low alloyed steels*
Austenitic steels with Mn: type Z 120 M 12, X 120 Mn 12, 1.3401
Spring steels: 45 Cr 4, 1.7035, 46 Si 7, 1.5024, 51 Si 7, 1.5025, 56 Si 7, 1.5026
Stainless steels to low alloyed steels
(*) with eventual pre- and post weld heat treatment.

Typical Weld Metal Composition (%)

C	Si	Mn	Cr	Ni	Fe
0.1	0.4	6.0	18.0	8.0	Rem.

All Weld Metal Mechanical Properties

$R_{p0.2}$ (MPa)	R_m (MPa)	A_5 (%)	KV (J)
>400	600-750	>35	+20℃ >90

Hardness: as welded ~ 200 HB, work hardened ~ 500 HB.

Welding Current & Instructions

Electrode	ØxL (mm)	2,5x300	3,2x350	4,0x350	5,0x450
Current	(A)	65	90	120	150

Redrying at 300℃ during 1 hour. Never preheat Mn-s teels because of its sensitivity to hot cracks.

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