

SUPERINOX 312

CLASSIFICATIONS

AWS A/SFA 5.4 E312-16

CHARACTERISTICS

A medium heavy coated, rutile type all position electrode giving 30/10 deposit which has excellent oxidation resistance. The weld metal has a two phase structure with substantial amount of ferrite in the austenitic matrix. The deposited weld metal is highly resistant to weld metal cracks and fissures. Gives a quiet and stable arc, low spatter, smooth weld bead and easily detachable slag. The weld metal meets radiographic quality.

TYPICAL APPLICATIONS

For welding difficult to weld steels e.g high carbon hardenable tool, die and spring steels, 13% Mn steels, free cutting steels, high temperature steels & Dissimilar joints between stainless and high carbon steels and unknown steels. Due to high ferrite content and high cracking resistance suitable for problematic steels with higher strength such as pressing dies and trimming tools.

CURRENT CONDITIONS: AC, DC (+)

5	4	3.2	2.5
150-180	110-140	80-100	35-50

WELDING POSITIONS

F, H, V-up, OH

REDRYING CONDITIONS

300°C for 1 Hr

WELD METAL CHEMISTRY, (%)

C - 0.15 max.	Cr - 28-32	S - 0.03 max.
Mn - 0.70-2.00	Ni - 8-10.50	P - 0.04 max.
Si - 0.30-0.90		

MECHANICAL PROPERTIES- ALL-WELD

Condition	UTS MPa	% Elong. (L=4Xd) 22 min.
As-welded	700-860	

PACKING DATA

Dia., mm	5.0	4.0	3.2	2.5	2.0
Length, mm	300	300	300	300	300
Wt. per carton, kg	2	2	2	2	2
Cartons / box	5	5	5	5	5
Net wt per box, kg	10	10	10	10	10



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