GWELD
SEAL OF TRUST

GRINOX 12

IDENTIFICATION
GRINOX 12 E 312-16

CLASSIFICATION
AWS A5.4: E312–16

DESCRIPTION
A rutile coated electrode depositing austenitic / ferritic stainless steel weld metal with a ferrite content of approximately FN 40. The weld metal exhibits excellent tolerance to dilution from dissimilar and difficult to weld materials without hot cracking.

WELD METAL ANALYSIS (RANGE) %

C	Mn	Si	S	P	Cr	Ni	Mo	Cu
0.15 max	0.5 - 1.80	0.40 - 0.90	0.03 max	0.03 max	28.0 - 32.0	8.0 - 10.5	0.75 max	0.50 max

MECHANICAL PROPERTIES (RANGE)

UTS (MPa)	EL (%) (L=4D)
660 - 800	22 - 32

TYPICAL APPLICATIONS
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, surfacing metal-to-metal areas, hot working tools, furnace components.

CORROSION RESISTANCE
Good resistance to sulphurous gases at high temperature. Good resistance to wet corrosion upto approximately 300°C.

OUTSTANDING FEATURES
- Spray type metal transfer.
- Smooth weldbead, electrode does not get red hot.
- Easy deslagging.
- Very low spatter loss, soft arc.
- Excellent weldability for all steels.

WELDING PROCEDURE
- Clean weld area.
- Bevel heavy sections.
- Use recommended current.
- Dry the electrodes at 200°C / 2 hrs.
- Use short arc.

HARDNESS OF THE UNDILUTED WELD METAL : 180 - 220 Brinell

WELDING POSITION :

PACKING PARAMETERS

Size (mm)	Length (mm)	AMPS AC / DC (+)	Packing / Box (kg)	Packing / Box (Pcs)
2.5	350	65 – 80	2 x 5 = 10	94 x 5 = 470
3.15 / 3.20	350	70 – 110	2 x 5 = 10	60 x 5 = 300
4	350	110 – 150	2 x 5 = 10	38 x 5 = 190
5	350	160 – 210	2 x 5 = 10	24 x 5 = 120