

# GRITINOX 312

## IDENTIFICATION

GRITINOX 312 E 312-17

## CLASSIFICATION

AWS/SFA 5.4 : E 312-17

## 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
0.12 max	0.5 - 2.0	0.50 - 0.90	0.03 max	0.03 max	28.0 - 32.0	8.0 - 10.5	0.50 max	0.50 max

## MECHANICAL PROPERTIES (RANGE)

UTS (MPa)	EL (%) (L=4D)
700 - 850	22 - 32

**HARDNESS OF THE UNDILUTED WELD METAL** : 180 - 220 Brinell

## 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.

## 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.

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

## WELDING POSITION :



1G 2F 2G 3G 4G 5G

## PACKING PARAMETERS

# GWELD

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	150 - 180	2 x 5 = 10	24 x 5 = 120