

# ES TIG 312

GTAW

ER312

**ESWECO**  
*The Art of Welding*

## Description

Bare, corrosion-resistant, chromium-nickel welding rods for welding materials of the 29% Cr, 9% Ni types. ES TIG 312 has good oxidation resistance at high temperatures due to its high content of Cr. The alloy is widely used for joining dissimilar steels, especially if one of the components is fully austenitic, and for steels that are difficult to weld, i.e. machine components, tools and austenitic-manganese steels.

## Current

DC (-)

## Classifications

SFA/AWS A5.9	ER312
EN 12072	W 29 9

## Typical all weld metal composition, %

C	Si	Mn	Cr	Ni	Mo	Cu
<0.15	0.5	1.8	30.5	9.5	<0.3	<0.3

## Typical mech. Properties all weld metal

Yield stress, MPa	610
Tensile strength, MPa	770
Elongation, %	20

## Charpy V

Test temps, °C	Impact values, J
+20	50

## Welding parameters

Diameter, mm	Length, mm	Weight of rods/box, kg
1.6	1000	5.0
2.0	1000	5.0
2.4	1000	5.0
3.2	1000	5.0