



# YAWATA 316L-16 *For Stainless Steel*

## Classification

AWS A 5.4 : E316L-16  
 DIN 8556 : E19 12 2 LR 26

## Applications

Welding of all chromium-nickel steel with low or medium C content, as well as titanium and niobium stabilized chromium-nickel steel of 18%Cr-8%Ni-2%Mo type, e.g. material DIN No. 1.4401, 1.4404, 1.4435, 1.4436, 1.4571, 1.4573, 1.4580, 1.4583, AISI 316, 316L, 318.

## Characteristics

YAWATA 316L-16 is a rutile high-alloy extra-low carbon electrode (ELC) for non-stabilized and stabilized chromium-nickel steels resistant to atmospheric corrosion of the 18%Cr-8%Ni-2%Mo type. Resistant to grain disintegration of operating temperatures up to 350°C. Smooth running, good striking and restriking. Regular appearance. Finely rippled, smooth junction, easy slag removal.

## Typical Chemical Composition of Deposited Metal (%)

C	Si	Mn	P	S	Cr	Ni	Mn
0.03	0.70	1.25	0.024	0.011	18.7	12.4	2.65

## Typical Mechanical Properties of Deposited Metal

Tensile Strength N/mm <sup>2</sup> (kgf/mm <sup>2</sup> )	Elongation %	Creep-rupture Strength (as welded, 1,000h), N/mm <sup>2</sup> (kgf/mm <sup>2</sup> )
560 (57)	46	650°C 140 (14) 732°C 57 (5.8)

## Typical Corrosion Resistance of Deposited Metal

Boiling 5% (weight) H <sub>2</sub> SO <sub>4</sub>	6.0 max (g/m <sup>2</sup> .h)
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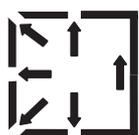
## Sizes & Recommended Current Range (AC or DC +)

Diameter/ Length (mm)	2.0/250	2.6/300	3.2/350	4.0/350	5.0/350
Welding Position	Current (A)				
F	40~50	55~70	80~100	110~140	140~170
V, OH	35~45	45~60	70~90	100~130	-

## Guideline in Usage

1. Damp electrodes should be re-dried at 150~250°C for 60 minutes before use.
2. Dirt such as oil, grease and dust should be completely removed from groove.
3. Keep weaving width to less than 2.5 times electrode diameter.

## Welding Positions



*All positions, except vertical down*