

# **S - 308L.16N**

SHIELDED METAL ARC WELDING CONSUMABLE  
FOR WELDING OF 18% Cr-8% Ni STAINLESS STEEL



## S -308L.16N

### ❖ Specification

**AWS A5.4** E308L-16

**JIS Z3221** ES308L-16

**EN 1600** E 19 9 L R

### ❖ Applications

S-308L.16N is designed for welding of 18%Cr-8%Ni stainless steels. (Petrochemical processing, textile industries etc.)

### ❖ Characteristics on Usage

S-308L.16N is a lime- titania type electrode for extra-low carbon 18%Cr - 8% Ni steel with good usability. It is quite efficient because its burn-off rate and deposition rate are high because comparatively High amperage can be used.

### ❖ Note on Usage

1. it is mostly effective to proceed with welding. Keeping the arc as short as possible in flat position.
2. Remove dirt such as oil and dust from the groove.
3. Dry the electrode at 350°C(662°F) for 60 minutes before use.

### ❖ Type of Current

AC or DC+

### ❖ Packing

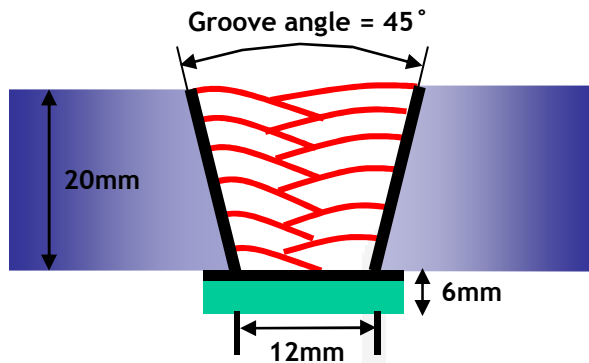
<b>Packet</b>	2.5kg(5.5lbs)
<b>Carton</b>	2.5kg(5.5lbs) X 4 : 10kg(22lbs)



## Mechanical Properties & Chemical Composition of All Weld Metal

### ❖ Welding Conditions

Method by AWS Spec.



Diameter(mm)	: 4.0mm
Amp./ Volt.	: 140/25
Travel speed(Cm/min)	: 13~18
Pre-Heat(°C)	: R.T.
Interpass Temp.(°C)	: 150±15
Position	: Flat
Polarity	: AC or DC+

[ Joint Preparation & Layer Details ]

### ❖ Mechanical Properties of All weld metal

Consumable	Tensile Test		CVN Impact Test (Joule)
	TS(MPa)	EI(%)	-60°C
S-308L.16N	561	44.0	43
AWS A5.4 E308L-XX	≥ 520	≥ 35	Not Specified

### ❖ Chemical Analysis of All weld metal(wt%)

Consumable	Chemical Composition (%)								
	C	Si	Mn	P	S	Ni	Cr	Mo	Cu
S-308L.16N	0.025	0.65	0.66	0.026	0.011	9.86	19.62	0.14	0.12
AWS A5.4 E308L-XX	≤0.04	≤1.0	0.5~ 2.5	≤0.04	≤0.03	9.0 ~11.0	18.0 ~21.0	≤ 0.75	≤ 0.75

This information is provided solely for the purpose of confirming product conformance with applicable standards. The serviceability of a product or structure utilizing this type of information is and must be the sole responsibility of the builder/user. Many variables beyond the control of HYUNDAI WELDING CO., LTD. affect the results obtained in applying this type of information. These variables include, but are not limited to, welding procedure, shielding gas, plate chemistry and temperature, weldment design, fabrication methods and service requirements.




**Mechanical Properties  
& Chemical Composition of All Weld Metal**

❖ **δ – Ferrite No.**


Consumable	Diagram			FERITSCOPE MP-30 * (FISCHER)
	Schaeffler	Delong	WRC(1992)	
S-308L.16N	10.6	9.3	6.6	5~6

❖ **Bead Appearance**

**Flat(1G, PA) , Base : STS 304L(6T)**



AC, 140A/25V



DC+, 145A/25V

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## Approvals

### ❖ AUTHORIZED APPROVAL DETAILS

Consumable	KR	ABS	LR
S-308L.16N	RD308L 2.4~5.0	AWS A5.4 E308L-16 2.4~5.0	304L 2.4~5.0
	BV	DNV	NK
	308L 2.0~5.0	308L 2.4~5.0	KD308L 2.4~5.0
	CWB	TUV	CE
	CSA W48-06 E308L-16 2.0~5.0	EN 1600 E 199 L R 2.0~5.0	EN 1600 E 199 L R 2.0~5.0
	DB	CCS	
	E199 L R (1.4316) DIN EN 1600 2.0~5.0	304L 2.0~5.0	

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