

# **S – 308Mo.16**

SHIELDED METAL ARC WELDING CONSUMABLE  
FOR WELDING OF MOLYBDENUM CONTAINING  
AUSTENITE STAINLESS STEEL

2020.12



## ❖ Specification

**AWS A5.4** E308Mo-16

**JIS Z 3221** ES308Mo-16

**EN ISO 3581-A** E 20 10 3

## ❖ Applications

All positional lime-titania type electrode which is extremely suitable for welding molybdenum containing austenite stainless steel. S-308Mo.16 can be used for welding such type as 316 stainless when increased ferrite is desired beyond that attainable with S-316.16N electrode.

## ❖ Characteristics on Usage

This electrode welds smoothly with low spatter and good slag detachability.

## ❖ Note on Usage

1. Dry the electrodes at 350°C(662°F) for 60 minutes before use.
2. Keep the arc as short as possible, and avoid large width of weaving.
3. Dirt such as oil and dust should be completely removed from groove.

## ❖ Type of Current

AC or DC+

## ❖ Packing

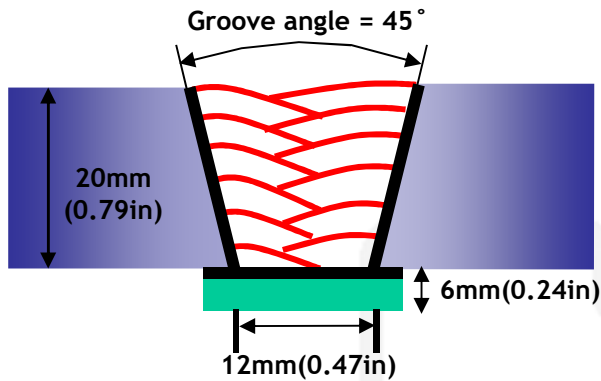
<b>Packet</b>	2.5kg(5.5lbs)
<b>Carton</b>	2.5kg(5.5lbs) X 4 : 10kg(22lbs)



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

❖ **Welding Conditions**

Method by AWS Spec.



Diameter	: 4.0mm(5/32in)
Amp./ Volt.	: 140/25
Travel speed	: 13~18(Cm/min)
Pre-Heat	: R.T .
Interpass Temp.	: 150±15℃(302±59°F)
Position	: Flat
Polarity	: AC or DC+

[ Joint Preparation & Layer Details ]

❖ **Mechanical Properties of All weld metal**

Consumable	Tensile Test	
	TS MPa (lbs/in <sup>2</sup> )	EI(%)
S-308Mo.16	621(90,000)	42.3
AWS A5.4 E308Mo-XX	≥520(75,000)	≥30

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

Consumable	Chemical Composition (%)								
	C	Si	Mn	P	S	Ni	Cr	Mo	Cu
S-308Mo.16	0.03	0.65	0.77	0.032	0.017	9.7	18.5	2.3	0.02
AWS A5.4 E308Mo-XX	≤0.08	≤1.0	0.5 ~2.5	≤0.04	≤0.03	9.0 ~12.0	18.0 ~21.0	2.0~ 3.0	≤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		
	Schaeffler	DeLong	WRC(1992)
S-308Mo.16	14.2	16.3	13.4



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