HYUNDAI WELDING

Rev. 03

S - 307.16

(EN ISO 3581-A- E18 8 Mn R 1 2)

2020.12

HYUNDAI WELDING CO., LTD.

S -307.16

❖ Specification

EN ISO 3581-A E 18 8 Mn R 1 2

❖ Applications

S-307L.16 is designed for welding of 18%Cr-8%Ni stainless steel, 13% Mn Steel, dissimilar welding, cladding.

❖ Characteristics on Usage

- S-307.16 is a lime- titania type electrode for extra-low carbon
It is quite efficient because Its burn-off rate and deposition rate are high because comparatively High amperage can be used.
- Low Crack sensitivity in High temperature Due to High Mn contents in weld metal(5~6% Mn)

❖ Note on Usage

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

❖ Type of Current

AC or DC+

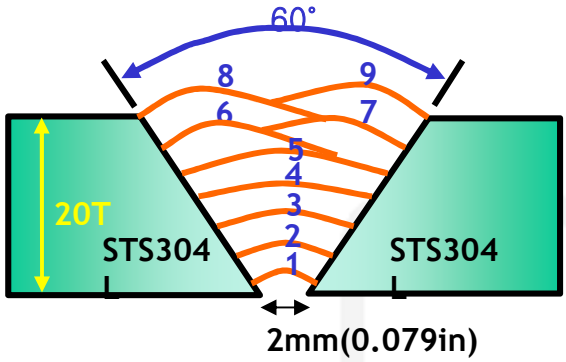
❖ Packing

Packet	2.5kg(5.5lbs)
Carton	2.5kg(5.5lbs) X 4 : 10kg(22lbs)

Mechanical Properties & Chemical Composition of All Weld Metal

❖ Welding Conditions

Method by AWS Spec.



[Joint Preparation & Layer Details]

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+

❖ Mechanical Properties of All weld metal

Consumable	Tensile Test		CVN Impact Test Joule(ft·lbs)
S-307.16	TS MPa (lbs/in²)	El(%)	-20℃(-4°F)
	643(93,000)	38	50(37)
EN ISO 3581-A-E 18 8 Mn R 1 2	≥500(73)	≥ 25	Not Specified

❖ Chemical Analysis of All weld metal(wt%)

Consumable	Chemical Composition (%)						
	C	Si	Mn	P	S	Ni	Cr
S-307.16	0.095	0.87	6.00	0.025	0.010	9.0	19.75
EN ISO 3581-A-E 18 8 Mn R 1 2	≤0.20	≤1.2	4.5~ 7.5	≤0.035	≤0.025	7.0~ 10.0	17.0~ 20.0

Mechanical Properties & Chemical Composition of All Weld Metal

❖ δ – Ferrite No.

Consumable	Diagram			FERITSCOPE MP-30 * (FISCHER)
	Schaeffler	Delong	WRC(1992)	
S-307.16	2.9	4.8	6.5	4.0~5.0

❖ Bead Appearance

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

AC, 140A/25V

DC+, 145A/25V