

SM-309LSi



❖ Specification

AWS A5.9 ER309LSi

JIS Z3321 YS309LSi

❖ Applications

SM-309LSi is the same as ER309L, except for higher silicon content. (for a low ferrite or full austenitic base metal)

❖ Characteristics on Usage

SM-309LSi is an austenitic type stainless steel wire, the weld metal contains ferrite and crack sensitivity is extremely good. The Usability, such as arc stability and assimilability of welds to base metal is extremely excellent.

Resistance to corrosion and mechanical properties of weld metal are great.

❖ Note on Usage

Use 100% Ar gas or Ar+2~5% O₂ gas

❖ Packing

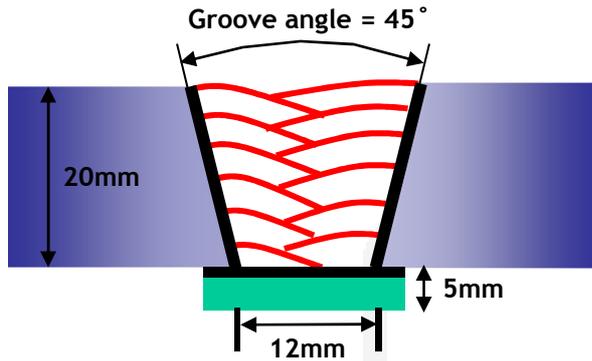
Dia.(mm)	0.9	1.2
Spool (kg) *including ball pac	12.5	



Mechanical Properties & Chemical Composition of All Weld Metal

❖ **Welding Conditions**

Method by AWS Spec.



[Joint Preparation & Layer Details]

- Diameter(mm)** : 1.2mm
- Shielding Gas** : Ar+2% O₂
- Flow Rate(ℓ /min.)** : 15~20
- Amp./ Volt.** : 230/27
- Stick-Out(mm)** : 20
- Pre-Heat(℃)** : R.T .
- Interpass Temp.(℃)** : 150±15
- Polarity** : DC(+)

❖ **Mechanical Properties of All weld metal**

Consumable	Tensile Test		CVN Impact test (Joule)	
	TS(MPa)	El(%)	0℃	-196℃
SM-309LSi	571	40.2	102.3	37.3

❖ **Chemical Analysis of the wire(wt%)**

Consumable	Shielding Gas	Chemical Composition (%)								
		C	Si	Mn	P	S	Ni	Cr	Mo	Cu
SM-309LSi	Ar+2% O ₂	0.022	0.78	1.61	0.022	0.002	13.87	24.11	0.108	0.332
AWS A5.9 ER309LSi		≤0.03	0.65~ 1.00	1.0~ 2.5	≤0.03	≤0.03	12.0~ 14.0	23.0~ 25.0	≤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	Shielding Gas	Diagram			FERITSCOPE MP-30 * (FISCHER)
		Schaeffler	DeLong	WRC(1992)	
SM-309LSi	Ar+2% O2	9.6	16	11.7	8.5



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