

SI 309L

Submerged Arc Welding Wire - Stainless Steels

Standards

AWS/ASME SFA - 5.9	ER309L
EN ISO 14343 - A	S 23 12 L
TS EN ISO 14343 - A	S 23 12 L
DIN M. No.	1.4332

Properties and Applications

Austenitic-ferritic wire electrode for submerged arc welding of stainless steels to unalloyed or low-alloyed steels, subjected to operating temperatures up to 300°C. Used in combination with SIF 501 and SIF 502 submerged arc welding fluxes. Low carbon content increases resistance to intergranular corrosion. Suitable to use also for buffer layer on carbon steel before welding with 308 and 308L to reach 304 and 304L surface layer.

Typical Chemical Features of the Welding Wire

Type of Analysis	C	Si	Mn	Cr	Ni
Welding Wire	0.02	0.40	1.80	24.50	13.50

Typical Chemical Values of Weld Metal



Welding Flux	Type of Analysis	C	Si	Mn	Cr	Ni
SIF 502	Weld Deposit	0.02	0.75	1.45	20.50	11.50
SIF 501	Weld Deposit	0.02	0.40	1.75	20.00	11.00

Typical Mechanical Values of Weld Metal

Test Condition	Welding Flux	Yield Strength (N/mm ²)	Tensile Strength (N/mm ²)	Elongation A5 (%)	Charpy V-Notch Properties (J)		
As welded	SIF 502	410	560	34	20°C → 70	-60°C → 40	-196°C → 30
As welded	SIF 501	410	560	35	20°C → 80	-60°C → 60	-196°C → 40

Application Information

Welding Positions

PA PB

Polarity:

= +

Welding Parameters & Efficiency

Diameter (mm)
2.40
3.20

Packaging Information

Product Code	Diameter (mm)	Quantity per Box	Box Gross Weight (kg)	Boxes per Outer Box	Outer Box Gross Weight (kg)	Packaging Type
43002IXAM2	2.40	25 kg	25.90	1	25.90	Wire Basket Spool (K435)
43002LXAM2	3.20	25 kg	25.90	1	25.90	Wire Basket Spool (K435)

Storage & Re-Drying Information

Shouldn't be exposed to high statical load and impact.
It should be stored in a dry room (relative humidity < 50%, room temperature > 20°C) on wooden pallets.