

STARINOX 309L

TOP FEATURES

- Semi-basic stick electrode depositing a low C – 22/24%Cr – 12/14%Ni weld metal with approx. 12% delta-ferrite promoting high resistance to hot cracking
- Excellent operability and is particularly suitable for downhand butt and fillet welding applications
- Easy arc striking and restriking
- Efficiency 100%
- Weldable on AC and DC+ polarity

TYPICAL APPLICATIONS

- Buffer layers and claddings on unalloyed and low-alloy steels
- Dissimilar joints (austenitic steels to ferritic steels) with operating temperatures up to 300°C
- Welding of stainless steels of similar composition

CLASSIFICATION

AWS A5.4	E309L-16
EN ISO 3581-A	E 23 12 L R 12

CURRENT TYPE

AC, DC+

WELDING POSITIONS

All positions

APPROVALS

ABS	LR	BV	DNV	TÜV	CE
+	+	+	+	+	+

CHEMICAL COMPOSITION (WEIGHT %), TYPICAL, ALL WELD METAL

C	Mn	Si	P	S	Cr	Ni	Ferrite
≤0.040	0.9	0.9	≤0.025	≤0.025	23.5	12.2	5-20

MECHANICAL PROPERTIES, TYPICAL, ALL WELD METAL

Required	Condition*	0.2% Proof strength (MPa)	Tensile strength (MPa)	Elongation (%)	Impact ISO-V (J) +20°C
AWS A5.4	AW	not specified	≥520	≥30	not specified
EN ISO 3581-A	AW	≥320	≥510	≥30	not specified
Typical values	AW	≥320	≥520	≥35	≥60

* AW: As-welded

OUTPUT RANGE

Diameter x Length (mm)	Current range (A)
2.5 x 350	55-80
3.2 x 350	70-110

PACKAGING AND AVAILABLE SIZES

Diameter x Length (mm)	Packaging	Electrodes/pack	Net weight/pack (kg)	Item number
2.5 x 350	VPMD	90	2.0	W100375910
3.2 x 350	VPMD	55	2.0	W000375913

TEST RESULTS

Test results for mechanical properties, deposit or electrode composition and diffusible hydrogen levels were obtained from a weld produced and tested according to prescribed standards, and should not be assumed to be the expected results in a particular application or weldment. Actual results will vary depending on many factors, including, but not limited to, weld procedure, plate chemistry and temperature, weldment design and fabrication methods. Users are cautioned to confirm by qualification testing, or other appropriate means, the suitability of any welding consumable and procedure before use in the intended application

Safety Data Sheets (SDS) are available here:



Subject to Change – The information is accurate to the best of our knowledge at the time of printing.
Please refer to www.lincolnelectric.eu for any updated information.