

Arosta® 309S

TOP FEATURES

- Rutile-basic all position MMA electrode depositing 309L austenitic stainless weld for dissimilar joints, buffer layers and similar steel joints
- Microstructure with approx. 12% delta-ferrite promoting high resistance to hot cracking
- Easy arc striking and restriking with excellent weldability and self releasing slag
- Excellent operability and is particularly suitable for downhand butt and fillet welding applications
- Efficiency about 100%

TYPICAL APPLICATIONS

- Dissimilar joints of stainless steels to mild and low alloy steels with operating temperatures up to 300°C
- Buffer layers and claddings on unalloyed and low-alloy steels
- Welding of stainless steels of similar compositions

CLASSIFICATION

AWS A5.4	E309L-16
EN ISO 3581-A	E 23 12 L R 1 2

CURRENT TYPE

AC; DC+

WELDING POSITIONS

All positions, except vertical down

APPROVALS

ABS, BV, TÜV

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

C	Mn	Si	P	S	Cr	Ni	FN (acc. WRC-1992)
≤0.040	0.9	0.9	≤0.025	≤0.025	23.5	12.2	12-20

MECHANICAL PROPERTIES, TYPICAL, ALL WELD METAL

	Condition	0.2% Proof strength (MPa)	Tensile strength (MPa)	Elongation (%)		Impact ISO-V (J) +20°C
				4d	5d	
AWS A5.4	AW	-	≥ 520	≥ 30	-	-
EN ISO 3581-A	AW	≥ 320	≥ 510	-	≥ 25	-
Typical values	AW	470	590	40	36	55

AW: As-welded

- = not specified

OPERATING CURRENT RANGE

Diameter x Length (mm)	Current range (A)
2.5 x 350	55-80
3.2 x 350	70-110
4.0 x 450	120-140

AVAILABLE SIZES AND PACKAGING INFORMATION

Diameter x Length (mm)	Packaging	Electrodes/pack	Net weight/pack (kg)	Item number
2.5 x 350	CBOH	90	2.0	528374-2
3.2 x 350	CBOX	120	4.3	528381-2
4.0 x 450	CBOX	80	5.7	528497-2

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.