

MMA Electrodes Stainless and Heat resistant steels

Supranox 309LP has a thin basic-rutile coating, designed for joining dissimilar steels (austenitic steels to ferritic steels) and for austenitic cladding. Weld metal consists of austenite with approx. 9 % delta-ferrite. Cladding on unalloyed and low-alloy steels is already corrosion resistant in the first layer. Highest operating temperature for joints between dissimilar steels is +300 °C. In case of higher temperatures, use SUPRANEL 600 electrodes.

Supranox 309LP is a good compromise between ease of use in positional welding and bead finish.

Classification	
AWS	A5.4: E309L-16
EN	1600: E 23 12 L R 12

Approvals	Grades
BV	

see Appendix, Classification Society Approvals, for details pag. 521

Analysis of all-weld metal (Typical values in %)

C	Mn	Si	P	S	Cr	Ni	Mo	Nb	Cu	N	Ferrite
≤ 0.03	1.40	0.50	≤ 0.025	≤ 0.020	23.50	13	-	-	-	-	9

All-weld metal Mechanical Properties

Heat Treatment	Yield Strength N/mm ²	Tensile Strength N/mm ²	Elongation A5 (%)	Impact Energy ISO - V (J) + 20 °C	Hardness
As Welded	≥ 320	≥ 520	≥ 30	≥ 50	-

Materials

A312 TP309S; carbon steel to stainless steels joint

Storage and redrying

Keep dry and avoid condensation.

Re-drying not generally required

If necessary: 300-350 °C for 2 hours, 5 times max

Current condition and welding position

DC+; AC



Packaging data

Diameter (mm)	Length (mm)	Current (A)	Electrode average weight (g)	Weld metal weight per electrode (g)
2,5	300	60-90	17,5	10,5
3,2	350	90-120	34,1	20,0
4,0	350	100-150	48,1	28,9