

# NST E 309L

AWS: A5.4 E 309L-17

EN ISO 3581-A: E 23 12 LR 32



## Rutile low carbon electrode for welding heat resistant steels.

### General description:

NST E 309L is a rutile, low carbon electrode for welding analogous, heat resistant steels and steel castings. Scaling resistant up to 1000 °C. Suitable for joining dissimilar steels (unalloyed steels with stainless steels), welding steam boiler constructions, hardening plants, crude oil and ceramics industries. Also suitable for buffer layers. Excellent welding properties in all welding positions, except vertical down ward (PG).

This product is delivered in a premium vacuum-pack, with smart 2-in-1 packaging.

VacuumPack SuperDry 2-in-1

### Welding positions:



### Welding current:

DC+/AC

### Redrying:

300 °C/2 hours

### Typical chemical composition of all-weld-metal:

C	Si	Mn	P	S	Cr	Ni			
0,04	0,90	0,70	<0,035	<0,025	23,0	13,0			

### Ferrite content:

FN $\approx$ 15

### Mechanical properties of all-weld-metal:

Yield and Tensile Strengths			Charpy Impact Test	
Yield Mpa	Tensile Mpa	Elongation %	Charpy V (J) +20 °C	
$\geq$ 320	550-650	$\geq$ 30	$\geq$ 47	

### Guidance - Ampere (DC+/AC):

Electrode diameter	2,5 mm	3,2 mm	4,0 mm
Ampere / Volt	40-80	70-100	110-160

### Packaging information:

2,5mm x 300mm x 16,2kg (SuperDry 2-in-1 packs, 2 x 0.9kg)  
3,2mm x 350mm x 16,0kg (SuperDry 2-in-1 packs, 2 x 0.8kg)  
4,0mm x 350mm x 10,0kg (SuperDry 2-in-1 packs, 2 x 0.5kg)

### Approvals:

CE

### Reference / date:

NST E 309L,  
English, 24.08.2018.