

# Cor-A-Rosta 309L

## Stainless rutile cored wire

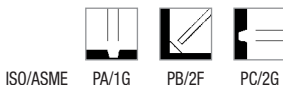
### Classification

AWS A5.22 : E309LTO-1/-4  
ISO 17663 : T 23 12 L R C/M 3

### General description

Gas shielded flux cored high CrNi alloyed wire electrode for downhand welding  
For welding stainless to mild steel and buffer layers in clad steel  
Excellent weldability and slag release  
High resistance to embrittlement

### Welding positions



### Current type/Shielding gas

DC +  
Ar+ (>5-25%) CO<sub>2</sub> (EN 439: M21)  
100% CO<sub>2</sub> (EN 439: C1)  
15-25 l/min

### Approvals

Shielding gas	BV	DNV	GL	LR
M21	309L	309LMS	4332S	SS/CMn
C1	309L	309LMS		SS/CMn

### Chemical composition (w%) and Ferrite Number (FN). typical. all weld metal

Shielding gas	C	Mn	Si	Cr	Ni	FN
M21/C1	0.03	1.4	0.6	24	12.5	15

### Mechanical properties, typical, all weld metal

	Shielding gas	Condition	Yield strength (N/mm <sup>2</sup> )	Tensile strength (N/mm <sup>2</sup> )	Elongation (%)	Impact ISO-V (J)	
						+20°C	-20°C
Required: AWS A5.22			not required	min. 520	min. 30		
ISO 17663			min. 320	min. 510	min. 25		
Typical values:	M21/C21	AW	450	570	36	45	40

### Packaging and available sizes

Unit	Net weight	Diameter (mm)	
	(kg)	1.2	1.6
Wire reel S200	5	X	
Plastic spool S300	15	X	X

Cor-A-Rosta 309L: rev. EN 22

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Liability: All information in this data sheet is based on the best available knowledge, is subject to change without notice and can only be considered as suitable for general guidance. Fumes: Consult information on Welding Safety Sheet, available upon request

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## Materials to be welded

Steel grades	EN 10088-11-2	W.Nr.	ASTM/ACI A240/A312/A351	UNS
Corrosion resisting	X2 CrNiN 18-10	1.4311	(TP)304LN	S30453
Cladsteel	X2 CrNi 19-11	1.4306	(TP)304L	S30403
			CF-3	J92500
	X4 CrNi 18-10	1.4301	(TP)304	S30400

- Dissimilar metals (mild and low alloyed steel to CrNi or CrNiMo stainless steel)
- Build-up welding on mild and low alloyed steel

## Welding parameters, optimum fill passes in shielding gas M21/C1

Welding position	PA/1G	PB/2F	PC/2G
Diameter (mm)	Current (A)		
1.2	100-250	100-250	100-200
1.6	140-300	140-300	140-200

## Remarks/ Application advice

Use for positional welding: Cor-A-Rosta P309L