



# Selectarc B81

*Basic Electrode  
For cold tough steels*

## Classification

AWS A5.5 : E8018-C3 H4R      EN 499 : E 46 5 1Ni B 4 2 H5  
ISO 2560-A : E 46 5 1Ni B 4 2 H5

## Description & Applications

Low hydrogen basic coated electrode alloyed with Nickel for welding steels with high strength and high toughness, resistant to low temperature down to -60°C. For weld joints exposed to low temperature. Regular fusion, nice aspect of the deposit.

### Base materials

### Fine grain construction steels, cold tough:

EN :	S185 – S355 – P235GH – P355 – L210 – L415 – S/P275 – S/P460 – E295 – E335 – E360 – P295GH – P355GH – P235 – P265 – A St35 – A St52 – GP240R.
ASTM :	A302 Gr A, B, C, D – A333 Gr 126 – A414 Gr G – A487 Gr BQ CQ A521 Gr AA, AB, CE, CF, LF1 – A537 C12 – A572 Gr 60&65 A350 Gr 126 – A350 Gr LF1, LF2 – A607 Gr 60&65 – A633 Gr A&B LF5 A668 Gr E&F – A714 Gr I à VI

## Typical Weld Metal Composition ( % )

C	Si	Mn	Ni	P	S	Fe
<0.12	0.5	1.1	1.0	<0.025	<0.025	Rem.

## All Weld Metal Mechanical Properties

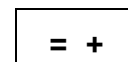
R <sub>e</sub> ( MPa )	R <sub>m</sub> ( MPa )	A <sub>5</sub> ( % )	KV ( J )
>470	>550	>24	-40°C >70 -50°C >47

## Welding Current & Instructions

Electrode	ØxL ( mm )	2,5x350	3,2x350	4,0x450	5,0x450
Current	( A )	80	115	150	190

Redrying at 350°C during 2 hours, if necessary. Eventual preheating of the weld joint at 100°C. Interpass temperature : < 250°C. A thermal stress relieving heat treatment is advised at 550°C during 1 - 2 hours.

Ind.12



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