Eles® C 9010

High strength cellulosic electrode

Classification

AWS A5.5	:E8010 – G
ISO 2560-A	:E 46 4 1NiMo C 25

General description

Cellulosic electrode, 0.5% Mo and Ni-alloyed, for vertical down welding in pipes
Suitable for pipe material API 5LX-70 and X-80, EN 10208-2, or L480 and L550
Popular with welders
Applicable for root, filling- and capping pass
Not sensitive for wagon tracks, windows and pinholes

Welding positions

ISO/ASME PG/5Gdown

Current type

DC electr. +
DC electr. – (root)

Chemical composition (w%),typical,all weld metal

C	Mn	Si	Ni	Mo
0.13	0.60	0.15	0.7	0.6

Mechanical properties,all weld metal

		Condition	Yield strength (N/mm^2)	Tensile strength (N/mm^2)	Elongation (%)	Impact (ISO), J -40^0C	Impact (ISO), J -46^oC
Required	AWS A5.5		min.530	min.620	min. 17	not required	
	ISO 2560-A		min.500	560-720	min. 18	min. 47	
Typical values after welding		AW	550	640	22	50	45

Packaging, available sizes and identification

	Diameter (mm)	3.2	4.0	5.0
	Length (mm)	350	350	350
Unit:	Pieces / unit (nominal)	300	185	125
Metal can	Net weight/unit (kg)	7.7	7.3	7.9

Identification	Imprint: Eles® C 9010	Tip colour: none	**Eles® C 9010: rev. EN 20**

Materials to be welded

Steel	Code	Type
Pipe material	EN 10208-2	L480, L 550
	API 5LX	X70, X80

Calculation Data

Sizes Diam.x length (mm)	Current range (A)	Current type	Arc time - per electrode at max.current - (s)*	Energy E (кJ)	Dep.rate H (kg/h)	Weight/ 1000 pcs. (kg)	Quantity of electrodes per 1kg of weldmetal (pcs.)	kg Electrodes/ kg weldmetal (1/N)
3.2 x 350	75 - 130	DC+				26.3		
4.0 x 350	80 - 185	DC+				40.8		
5.0 x 350	140-225	DC+				63.6		

*stub end = 35 mm

Welding parameters,optimum fill passes

Welding position	PA/5G down
Diameter (mm)	Current (A)
3.2	120
4.0	170
5.0	180

Application Advice

Preheating pipe material required acc.EN 1011-1
Use (Elex® C 6010/C 6010 Extra or Eles® C 8010) for lower yield strength in the root pass
Pipeclamps to be removed after finishing root pass,start welding"hot pass"immediately (within 5 min.) after root pass
Use electrode directly from metal cans