

High strength cellulosic electrode

Classification

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

General description

Cellulosic coated electrode for vertical down pipe welding
 Suitable for pipe with strengths in the range of X46 - X70
 Can be used for root, fill and capping passes
 Low susceptibility to wagon tracks, windows and pinholes
 Good impact properties
 Can be used for silicon-killed steels

Welding positions



ISO/ASME PG/5Gdown

Current type

DC electr. +

Approvals

TÜV
 +

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

C	Mn	Si	Ni	Cr	V	P	S
0.12	0.90	0.20	0.85	0.10	0.03	0.012	0.013

Mechanical properties, all weld metal

	Condition	Yield strength (N/mm ²)	Tensile strength (N/mm ²)	Elongation (%)	Impact (ISO), J	
					-20°C	-40°C
Required	AWS A5.5 ISO 2560-A	min.460 min.460	min.550 530-680	min. 19 min. 20	not required	
Typical values after welding	AW	510	570	24	75	min. 47

Packaging, available sizes and identification

	Diameter (mm)	3.2	4.0	5.0
	Length (mm)	350	350	350
Unit:	Pieces / unit (nominal)	320	195	125
Metal can	Net weight/unit (kg)	8.3	7.7	7.8

Identification Imprint: Eles® C 8010 Tip colour: none

Eles® C 8010: rev. EN 20

Materials to be welded

Steel	Code	Type
Pipe material	EN 10208-2	L360, L415, L445, L480
	EN 10216-1/ EN 10217-1	P355
	API 5LX	X56, X60, X65, X70
	Gaz de France	X52, X63

Calculation Data

Sizes Diam.x length (mm)	Current range (A)	Current type	Arc time - per electrode at max.current - (s)*	Energy E (kJ)	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+				25.8		
4.0 x 350	90 - 185	DC+				39.5		
5.0 x 350	140-225	DC+				62.3		

*stub end = 35 mm

Welding parameters,optimum fill passes

Welding position	PA/5G down
Diameter (mm)	Current (A)
3.2	110
4.0	150
5.0	165

Application Advice

- Preheating pipe material L360 and L480 (X56-X70) required acc.EN 1011-1
- 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
- Use Elex C 6010 for lower hardness in the root pass