

## High strength cellulosic electrode

### Classification

AWS A5.5-96 : E7010-G  
EN 499-94 : E 42 2 Mo C 25

### General description

Cellulosic coated electrode for vertical down pipe welding  
Suitable for pipe with strengths X52 through X65  
Popular with welders  
Easy operability  
Low susceptibility to wagon tracks, windows and pinholes

### Welding positions



ISO/ASME PG/5Gdown

### Current type

DC electr. +

### Approvals

LR	TÜV
3,3Y	+

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

C	Mn	Si	Mo	V
0.12	0.35	0.12	0.35	0.02

### Mechanical properties, all weld metal

	Condition	0.2% Proof strength (N/mm <sup>2</sup> )	Tensile strength (N/mm <sup>2</sup> )	Elongation (%)	Impact ISO-V(J)	
					-20°C	-30°C
Required: AWS A5.5-96		min. 390	min. 480	min. 22	not required	
EN 499-94		min. 420	500-640	min. 20	min. 47	
Typical values	AW	430	520	26	75	50

### Packaging, available sizes and identification

	Diameter (mm)	2.5	3.2	4.0	5.0
Length (mm)		350	350	350	350
Unit: Metal can	Pieces / unit (nominal)	440	325	195	130
	Net weight/unit (kg)	6.9	8.4	7.8	8.1

### Identification

Imprint: 7010-G SAHYP

Tip colour: none

Shield Arc® HYP: rev. EN 15

## Materials to be welded

Steel	Code	Type
Pipe material	EN 10208-2	L 360, L 415
	EN 10216-1 / 10217-1	P 355
	API 5LX	X52, X 56, X60, X65
	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)	Electrodes/ kg weldmetal B	kg Electrodes/ kg weldmetal 1/N
2.5x350	40-70	DC+				15.7		
3.2x350	75-130	DC+				26.0		
4.0x350	90-185	DC+				40.0		
5.0x350	140-225	DC+				62.3		

\* stub end = 35 mm

## Welding parameters, optimum fill passes

Welding position:	PG/5G down
Diameter (mm)	Current (A)
2.5	65
3.2	110
4.0	150
5.0	165

## Application Advice

Preheating pipe material L360 and L415 (X56 t/m X65) 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 Fleetweld® 5P for lower hardness in the root pass