

Cellulosic electrode

Classification

AWS A5.1-91 : E6010
EN 499-94 : E 42 3 C 25

General description

Cellulosic coated electrode for pipe and general welding.
Gives high ductility root welds.
Very deep penetration ensures sound pass root.
Easy striking, easy slag release.
High volume of generated gas eliminates porosity.
Reduced problems from dirt and oil on surface.

Welding positions



ISO/ASME PF/5G up PG/5G down

Current type

DC electr. +

Approvals

LR	TÜV
3	+

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

C	Mn	Si
0.15	0.50	0.25

Mechanical properties, all weld metal

Condition	Yield strength (N/mm ²)	Tensile strength (N/mm ²)	Elongation (%)	Impact ISO-V(J)		
				-20°C	-29°C	-30°C
Required: AWS A5.1-91	min. 331	min. 414	min. 22		27	
EN 499-94	min. 420	500-640	min. 20			47
Typical values	AW 440	520	26	70	65	

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)	480	275	205	135
	Net weight/unit (kg)	7.6	7.2	8.2	8.3

Identification Imprint: 6010-FW5P+

Tip colour: none

Fleetweld® 5P+: rev. EN 15

Materials to be welded

Steel	Code	Type
Pipe material	EN 10208-1	L 210, L 240
	EN 10208-2	L 240 , L 290, L 360
	EN 10216-1 / 10217-1	P 235, P 275, P 355
	API 5LX	X42, X46, X52
	Gaz de France	X42, X46, X52

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+				15.8		
3.2x350	65-130	DC+				26.2		
4.0x350	90-175	DC+				40.0		
5.0x350	140-225	DC+				61.5		

* stub end = 35 mm

Welding parameters, optimum fill passes

Welding position Diameter (mm)	PF/5G up Current (A)	PG/5G down
2.5	55	65
3.2	90	110
4.0	130	150
5.0	150	165

Application advice

Preheating pipe material L360 (X52) required (acc. EN 1011-1).

Pipeclamps to be removed after finishing root pass, start welding the 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, when necessary