

High strength basic electrode

Classification

AWS A5.5-96 : E12018-G H4
EN 757-97 : E 69 5 Mn2NiMo B 53 H5*

* Nearest classification

General description

Basic high recovery (150%) low hydrogen electrode $H_{0M} < 5\text{ml}/100\text{g}$

For steels with a tensile strength UTS of max. 835 N/mm²

For high strength steels such as T1, HY 100, Naxtra 70, HRS 650, Dillimax. 690

Good impact toughness down to -60°C

Also available in vacuum sealed Sahara ReadyPack® (SRP)

Welding positions



ISO/ASME PA/1G PB/2F PC/2G

Current type

AC / DC elektr. + / -

Approvals

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

C	Mn	Si	P	S	Ni	Mo
0.06	1.5	0.4	0.02	0.01	2.5	1.0

Mechanical properties, all weld metal

	Condition	0.2% Proof strength (N/mm ²)	Tensile strength (N/mm ²)	Elongation (%)	Impact ISO-V(J)		
					-40°C	-50°C	-60°C
Required: AWS A5.5-96		min. 740	min. 830	min. 14	not required		
EN 757-97		min. 690	760-960	min. 17	min. 47		
Typical values	AW	790	850	17	70	55	

Packaging, available sizes and identification

Diameter (mm)	4.0	5.0
Length (mm)	450	450
on request		

Identification Imprint: 12018-G/Conarc 85-150 Tip colour: Yellow

Conarc® 85-150: rev. EN 15

Materials to be welded

Steel	Code	Type
Pipe material	API-5LX	X70, X75, X80
Fine grained steel	EN 10137-2	S690
		root runs and fillet welds in S890

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
4.0 x 450	150 - 210	DC+						
5.0 x 450	180 - 290	DC+						

* stub end 35mm

Welding parameters, optimum fill passes

Welding position: Diameter (mm)	PA/1G Current (A)	1F	PB/2F
4.0	175	210	190
5.0	225	255	235

Remarks

Deviations: chemical composition:

Mo = 0.7 - 1.1%

EN: Mo = 0.3 - 0.6%