

CLASSIFICATION

AWS A5.5 : E11018M-H4
EN 757 : E 69 5 Z B 32 H5

GENERAL DESCRIPTION

Basic all position extremely low hydrogen electrode

Weldable on AC and DC

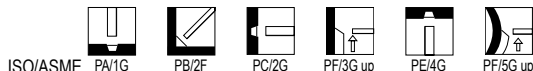
110 - 115% recovery

Good impact values at -51°C

Meets the requirements of military specifications

Suitable for welding submarines high strength steels (UTS up to 800 N/mm²)

Also available in vacuum sealed Sahara ReadyPack®(SRP): HDM< 3 ml/100g

WELDING POSITIONS

ISO/ASME



PA/1G



PB/2F



PC/2G



PF/3G up



PE/4G



PF/5G up

CURRENT TYPE

AC / DC +/-

APPROVALS

ABS LR
+ 4Y69H5

CHEMICAL COMPOSITION (W%), TYPICAL, ALL WELD METAL

C	Mn	Si	P	S	Ni	Mo	H _{DM}
0.06	1.5	0.4	0.015	0.01	2.2	0.4	2 ml/100 g

MECHANICAL PROPERTIES, TYPICAL, 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	-51°C
Required: AWS A5.5	680-760*	min. 760	min. 20			min. 27
EN 757	min. 690	760-960	min. 17	100	min. 47	
Typical values	AW 750	785	22		80	80

* Diam.2.5 max.795 N/mm²

PACKAGING AND AVAILABLE SIZES

		Diameter (mm)	2.5	3.2	4.0	5.0
		Length (mm)	350	350	350	450
Unit: carton box	Pieces / unit	225	120	90	60	
	Net weight/unit (kg)	4.4	4.5	5.0	6.3	
Unit: SRP	Pieces / unit	70	50	28	23	
	Net weight/unit (kg)	1.4	1.9	1.5	2.5	

Identification Imprint: 11018-M / CONARC 80 Tip Color: gold

Conarc® 80: rev. EN 23

Conarc® 80

MATERIALS TO BE WELDED

Steel grades/Code	Type
Pipe material	
API 5LX	X70, X75
Fine grained steels	
EN 10025 part 6	S620, 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 weld- metal B	kg electrodes/ kg weldmetal 1/N
2.5x350	60-80	DC+	55	99	0.8	19.5	82	1.61
3.2x350	80-130	DC+	78	261	1.1	36.5	43	1.55
4.0x350	120-180	DC+	75	356	1.6	53.2	30	1.59
5.0x450	160-240	DC+	116	627	2.3	105.1	14	1.45

*Stub end 35mm

WELDING PARAMETERS, OPTIMUM FILL PASSES

Diameter (mm)	Welding positions					
	PA/1G	PB/2F	PC/2G	PF/3Gup	PE/4G	PF/5Gup
2.5	75A	75A	75A	80A	75A	80A
3.2	130A	120A	135A	120A	115A	120A
4.0	145A	145A	155A	140A	140A	140A
5.0	225A	230A	210A			

REMARKS / APPLICATION ADVICE

Electrodes after removal from cardboard boxes redry 2-4h 350 ±25°C