

CLASSIFICATION

AWS A5.5	E12018-G-H4R	A-Nr	10
ISO 18275-A	E 69 5 Mn2NiCrMo B 3 2 H5	F-Nr	4
		9606 FM	2

GENERAL DESCRIPTION

Basic all position extremely low hydrogen electrode (HDM < 2 ml/100g)

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 values down to -50°C

Only available in vacuum sealed Sahara ReadyPack® (SRP)

WELDING POSITIONS (ISO/ASME)



PA/1G



PB/2F



PC/2G



PF/3Gu



PE/4G



PH/5Gu

CURRENT TYPE

AC / DC +/-

APPROVALS

ABS

DNV

CCS

+

4Y69H5

4Y69H5

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

C	Mn	Si	P	S	Ni	Mo	Cr	HDM
0.06	1.4	0.3	0.010	0.010	2.0	0.4	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
Required: AWS A5.5 ISO 18275-A	min. 740	min. 830	min. 14	not required	
Typical values	min. 690	760-960	min. 17		min. 47
AW	840	890	21	80	60
SR:1h/620°C	780	840	20	75	60

PACKAGING AND AVAILABLE SIZES

SRP	Diameter (mm)	2.5	3.2	4.0	4.0	5.0
	Length (mm)	350	350	350	450	450
Pieces / unit		68	50	28	28	23
	Net weight/unit (kg)	1.4	1.9	1.5	1.9	2.5

Identification Imprint: 12018-G / CONARC 85

Tip Color: light blue

Conarc® 85 rev. C-EN29-12/05/16

Conarc® 85

EXAMPLES OF MATERIALS TO BE WELDED

Steel grades/Code	Type
Pipe material API 5LX	X70, X75, X80
Fine grained steels EN 10025 part 6	S690 Root runs and fillet welds in S890

SMAW

CALCULATION DATA

Sizes Diam. x length (mm)	Current range (A)	Current type	Arc time	Energy	Dep. rate	Weight/ 1000 pcs (kg)	Electrodes/ kg weldmetal	kg electrodes/ kg weldmetal
			- per electrode at max. current - [S]*	E(kJ)	H(kg/h)		B	1/N
3.2x350	80-130	DC+	69	219	1.0	375	50	1.89
4.0x350	120-180	DC+	68	321	1.5	53.2	35	1.87
5.0x450	160-240	DC+	106	632	2.0	106.7	17	1.81

*Stub end 35mm

WELDING PARAMETERS, OPTIMUM FILL PASSES

Diameter (mm)	Welding positions					
	PA/1G	PB/2F	PC/2G	PF/3Gup	PE/4G	PH/5Gup
2.5	75A	75A	75A	80A	75A	80A
3.2	135A	130A	140A	120A	120A	120A
4.0	155A	145A	155A	140A	140A	140A
5.0	225A	220A	215A			