

CLASSIFICATION

AWS A5.5 : E9018M-H4
EN 757 : E 55 4 Z B 32 H5

GENERAL DESCRIPTION

Basic all position extremely low hydrogen electrode
For welding high strength steel grades (UTS 540-640 N/mm²)
Good impact values down to -51°C DC welding preferred
115 - 120% recovery
Also available in vacuum sealed Sahara ReadyPack®(SRP): H_{DM} < 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	BV	DNV	GL	LR	TÜV
3Y	4Y50	4Y50H5	4YH10	+	+

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

C	Mn	Si	P	S	Ni	Mo	H _{DM}
0.06	1.0	0.4	0.015	0.010	1.6	0.3	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)		
				-20°C	-40°C	-51°C
Required: AWS A5.5	540-620*	min. 620	min. 24			min. 27
EN 757	min. 550	610-780	min. 18		min. 47	
Typical values	AW	600	670	25	98	
SR:1h/620°C	550	640	24	90		40

* Dia.2.5 mm max 655 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	110	120	85	55
	Net weight/unit (kg)	2.5	4.6	4.6	5.8
Unit: SRP	Pieces / unit	65	50	28	23
	Net weight/unit (kg)	1.4	2.0	1.5	2.6

Identification Imprint: 9018-M / CONARC 60G Tip Color: red

Conarc® 60G: rev. EN 24

Conarc® 60G

MATERIALS TO BE WELDED

Steel grades/Code	Type
General structural steels	
EN 10025	S355
Pipe material	
EN 10208-2	L360, L415, L445, L480
API 5LX	X52, X56, X60, X65, X70
EN 10216-1/EN10217-1	P235T1, P235T2, P275T1, P275T2, P355N
Fine grained steels	
EN 10025 part 4	S420 M (L), S460 M (L), S420 N (L), S460 N (L)
EN 10025 part 6	S460, S500
Weather resisting steels	
EN 10155	S235 J0W S235 J2W S355 J0W S355 J2W S355 K2G1W

CALCULATION DATA

Sizes		Current range (A)	Current type	Arc time	Energy	Dep. rate	Weight/ 1000 pcs (kg)	Electrodes/ kg weld-metal B	kg electrodes/ kg weldmetal 1/N
Diam. x length (mm)	- per electrode at max. current - (S)*			E(kJ)	H(kg/h)				
2.5x350	60-100	DC+	63	114	0.7	23.5	77	1.80	
3.2x350	80-130	DC+	69	231	1.3	38.3	40	1.52	
4.0x350	120-180	DC+	72	324	1.7	55.8	30	1.66	
5.0x450	160-240	DC+	119	760	2.2	105.2	14	1.43	

*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	80A	75A	80A	85A	75A	75A
3.2	130A	120A	135A	120A	115A	120A
4.0	155A	145A	160A	145A	140A	140A
5.0	225A	220A	210A			

REMARKS / APPLICATION ADVICE

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