

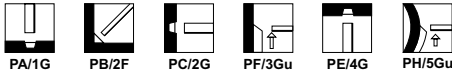
## CLASSIFICATION

<b>AWS A5.5</b>	E9018-G-H4R	<b>A-Nr</b>	10
<b>ISO 18275-A</b>	E 55 6 Z B 3 2 H5	<b>F-Nr</b>	4
		<b>9606 FM</b>	2

## GENERAL DESCRIPTION

Basic all position offshore electrode for high strength steels  
 110 - 120% recovery  
 Extremely low hydrogen content  
 Excellent impact toughness down to -60°C  
 Good CTOD at -15°C  
 Also available in vacuum sealed Sahara ReadyPack<sup>®</sup>(SRP): HDM<3 ml/100g

## WELDING POSITIONS (ISO/ASME)



## CURRENT TYPE

AC / DC +/-

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

C	Mn	Si	P	S	Ni	HDM
0.05	1.6	0.3	0.015	0.01	1.5	2 ml/100 g

## MECHANICAL PROPERTIES, TYPICAL, ALL WELD METAL

Condition	0.2% Proof strength [N/mm <sup>2</sup> ]	Tensile strength [N/mm <sup>2</sup> ]	Elongation [%]	Impact ISO-V(J)		
				-40°C	-50°C	-60°C
Required: AWS A5.5	min. 530	min. 620	min. 17	not required		
ISO 18275-A	min. 550	610-780	min. 18			min. 47
Typical values	AW	650	22	140	110	60
	SR:620°C/1h	530	22			

CTOD value at -10°C > 0.25 mm

## PACKAGING AND AVAILABLE SIZES

	Diameter (mm)	2.5	3.2	4.0
	Length (mm)	350	450	450
SRP	Pieces / unit	70	50	28
	Net weight/unit (kg)	1.4	2.4	2.0

# Kryo<sup>®</sup> 2

## EXAMPLES OF MATERIALS TO BE WELDED

Steel grades/Code	Type
<b>General structural steels</b>	
EN 10025	S355
<b>Cast steels</b>	
EN 10213-2	GP240R
<b>Pipe material</b>	
EN 10208-1	L290 GA, L360 GA
EN 10208-2	L290, L360, L415, L445, L480
API 5LX	X42, X46, X52, X60, X65, X70
EN 10216-1	P275T1
EN 10217-1	P275T2, P355N
<b>Fine grained steels</b>	
EN 10025 part 3	S275, S355, S420, S460
EN 10025 part 4	S275, S355, S420, S460
EN 10025 part 6	S460, S500
<b>Low temperature steels</b>	
EN 10028-4	11MnNi5-3, 13 MnNi6-3, 15NiMn 6
EN 10222-3	13MnNi6-3, 15NiMn 6

## CALCULATION DATA

Sizes Diam. x length (mm)	Current range (A)	Current type	Arc time	Energy	Dep. rate	Weight/ 1000 pcs (kg)	Electrodes/ kg weldmetal B	kg electrodes/ kg weldmetal 1/N
			- per electrode at max. current - (S)*	E(kJ)	H(kg/h)			
2.5x350	55-85	DC+	59	85	0.72	19.4	86	1.65
3.2x450	80-140	DC+	80	268	1.2	46.8	36	1.70
4.0x450	120-170	DC+	89	445	1.8	70.0	22	1.52

\*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	80A	80A	80A	85A	80A	80A
3.2	140A	120A	145A	120A	120A	120A
4.0	150A	140A	150A	140A	135A	140A

## REMARKS / APPLICATION ADVICE

Redry electrodes 2-4h 350 ±25°C after removal from cardboard boxes