

## CLASSIFICATION

<b>AWS A5.5</b>	E 8018-G-H4R	<b>A-Nr</b>	10
<b>ISO 2560-A</b>	E 50 6 Mn1Ni B 3 2 H5	<b>F-Nr</b>	4
		<b>9606 FM</b>	1

## GENERAL DESCRIPTION

The basic all position offshore electrode with max. 1% Ni  
 Excellent mechanical properties (impact down to -60°C)  
 Good CTOD at -10°C  
 Extremely low hydrogen content  
 110 - 120% recovery  
 Weldable on AC and DC  
 Vacuum sealed Sahara ReadyPack®: 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	1.5	0.5	0.010	0.005	0.95	2 ml/100 g

## MECHANICAL PROPERTIES, TYPICAL, ALL WELD METAL

Condition	0.2% Proof strength (N/mm²)	Tensile strength (N/mm²)	Elongation (%)	Impact ISO-V(J)	
				-40°C	-60°C
Required: AWS A5.5 ISO 2560-A	min. 460 min. 500	min. 550 560-720	min. 19 min. 18	not required	
Typical values AW SR:580°C/15h	550 460	640 550	24 24	140 150	min. 47 80 90

CTOD value at -10°C > 0.25 mm

## PACKAGING AND AVAILABLE SIZES

SRP	Diameter (mm)	2.5	3.2	3.2	4.0	4.0	5.0
	Length (mm)	350	350	450	350	450	450
	Pieces / unit	70	50	50	28	28	23
	Net weight/unit (kg)	1.4	1.9	2.4	1.5	2.0	2.5

# Kryo® 1P

## EXAMPLES OF MATERIALS TO BE WELDED

Steel grades/Code	Type
<b>General structural steels</b>	
EN 10025	S275, S355
<b>Ship plates</b>	
ASTM A 131	Grade A, B, D, AH32 to EH40
<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
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

## CALCULATION DATA

Sizes		Current range (A)	Current type	Arc time	Energy	Dep. rate	Weight/ 1000 pcs (kg)	Electrodes/ kg weldmetal B	kg electrodes/ kg weldmetal 1/N
Diam. x length (mm)	- per electrode at max. current -			(S)*	E(kJ)	H(kg/h)			
2.5x350	55-85	DC+	59	85	0.72	19.3	86	1.65	
3.2x350	80-145	DC+	66	220	1.2	37.7	48	1.79	
3.2x450	80-145	DC+	78	259	1.3	48.7	35	1.72	
4.0x350	120-185	DC+	77	355	1.6	54.1	29	1.59	
4.0x450	120-185	DC+	90	450	1.8	68.4	23	1.56	
5.0x450	180-270	DC+	104	784	2.4	105.2	15	1.53	

\*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	80A	80A	80A
3.2	140A	120A	145A	120A	120A	120A
4.0	150A	140A	150A	140A	135A	140A
5.0	220A	210A	210A	170A		

## REMARKS / APPLICATION ADVICE

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