Kryo® 1-145

EMR SAHARA®

CLASSIFICATION

AWS A5.5	E8018-G-H4R	**A-Nr**	10
ISO 2560-A	E 50 6 Mn1Ni B 5 3 H5	**F-Nr**	4
		9606 FM	1

GENERAL DESCRIPTION

Basic electrode with max. 1%Ni to meet NACE MR0175 standard
Extremely low hydrogen content: HDM< 2 ml/100g
Up to 145% recovery, easy slag release, weldable on AC and DC
Filling horizontal V- and X-grooves
Excellent X-ray quality
Only available in vacuum sealed Sahara ReadyPack® (SRP)

WELDING POSITIONS (ISO/ASME)


PA/1G


PB/2F


PC/2G

CURRENT TYPE

AC / DC +/-

APPROVALS

DNV

5Y46H5

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

C	Mn	Si	P	S	Ni	HDM
0.06	1.5	0.5	0.010	0.010	0.9	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) -60°C
Required: AWS A5.5		460	550	19	
ISO 2560-A		500	560-720	18	min. 47
Typical values	AW	570	630	23	90

PACKAGING AND AVAILABLE SIZES

	Diameter (mm)	3.2	4.0	5.0
	Length (mm)	450	450	450
SRP	**Pieces / unit**	48	25	21
	Net weight/unit (kg)	2.5	2.0	2.6

Identification Imprint: 8018-G / KRYO 1-145 Tip Color: Orange

Kryo® 1-145: rev. C-EN02-30/07/18

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EXAMPLES OF MATERIALS TO BE WELDED

Steel grades/Code	Type
General structural steels	
EN 10025	S275, S355
Ship plates	
ASTM A 131	Grade A, B, D, E, AH32 up to and including EH40
Cast steels	
EN 10213-2	GP 240 GH, GP 280 GH
Pipe material	
EN 10216-1	P195 TR1 / TR2, P 235 TR1 / TR2, P265 TR1 / TR2
EN 10216-2	P195 GH, P235 GH, P265 GH
EN 10216-3	P275 NL1 / NL2, P355 N / NH / NL1 / NL2, P 460 N / NH / NL1 / NL2
EN 10208-1	L210 GA, L235 GA, L245 GA, L290 GA, L360 GA
EN 10208-2	L245 MB / NB, L290 MB / NB, L360 MB / NB / QB, L415 MB / NB /QB, L450 MB / QB
API 5L	X42, X46, X52, X56, X60, X65, X70
Boiler & pressure vessel steel	
EN 10028-2	P235 GH, P265 GH, P295 GH, P355GH
Fine grained steels	
EN 10025 part 3	S275 N / NL, S355 N / NL, S420 N / NL, S460 N / NL
EN 10025 part 4	S275 M / ML, S355 M / ML, S420 M / ML, S460 M / ML
EN 10025 part 6	S460 / S460 Q/QL/QL1, S500 Q/QL/QL1 0, S500
Others	
Steel grades with equivalent requirements as per above classified per ASTM, JIS etc	

CALCULATION DATA

Sizes Diam. x length (mm)	Current range (A)	Current type	Arc time - per electrode at max. current - (S)*	Energy - per electrode at max. current - E(kJ)	Dep. rate - per electrode at max. current - H(kg/h)	Weight/ 1000 pcs (kg)	Electrodes/ kg weldmetal B	kg electrodes/ kg weldmetal 1/N
3.2x450	90-150	DC+	82	271	1,6	54,4	27	1,47
4.0x450	150-190	DC+	95	433	2,2	82,2	18	1,48
5.0x450	180-270	DC+	98	688	3,3	127,4	12	1,53

*Stub end 45mm

WELDING PARAMETERS, OPTIMUM FILL PASSES

Diameter (mm)	Welding positions PA/1G	PB/2F	PC/2G
3.2	130 A	130 A	130 A
4.0	170 A	160 A	160 A
5.0	235 A	225 A	225 A