Kryo® 3

EMR SAHARA®

CLASSIFICATION

AWS A5.5	E8018-C1-H4	**A-Nr**	10
ISO 2560-A	E 46 8 3Ni B 32 H5*	**F-Nr**	4
* Nearest equivalent		**9606 FM**	1

GENERAL DESCRIPTION

The basic all position offshore electrode with approx. 2.5% Ni
115 - 120% recovery
Excellent impact toughness down to -80°C
Good CTOD at -10°C
Extremely low hydrogen content
Also available in vacuum sealed Sahara ReadyPack® (SRP): HDM< 3 ml/100g

WELDING POSITIONS (ISO/ASME)

PA/1G PB/2F PC/2G PF/3Gu PE/4G PH/5Gu

CURRENT TYPE

AC / DC +/-

APPROVALS

ABS	BV	DNV	LR	GL	RINA	TÜV
+	UP	5YH10	5Y40H	6Y42H10	5YH5	+

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

C	Mn	Si	P	S	Ni	HDM
0.05	0.7	0.3	0.015	0.01	2.5	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	Impact ISO-V(J) -80°C
Required: AWS A5.5	SR[1]	min. 460	min. 550	min. 19	min. 27	
ISO 2560-A		min. 460	530-680	min. 20		min. 47
Typical values	AW	520	600	26	120	60
	SR:610°C/2h	500	590	29	90	

CTOD value at -10°C > 0.25 mm
Stress relieved:SR[1] = 605±14°C/1h

PACKAGING AND AVAILABLE SIZES

	Diameter (mm)	2.5	3.2	3.2	4.0	4.0	5.0
	Length (mm)	350	350	450	350	450	450
Carton + PE foil	**Pieces / unit**	135	120	-	85	85	55
	Net weight/unit (kg)	2.7	4.2	-	4.4	5.9	5.7
SRP	**Pieces / unit**	70	50	50	28	28	23
	Net weight/unit (kg)	1.4	1.9	2.4	1.5	2.0	2.5

Identification Imprint: 8018-C1 / KRYO 3 Tip Color: silver

Kryo® 3: rev. C-EN26-01/02/16

All information in this data sheet is accurate to the best of our knowledge at the time of printing. Please refer to www.lincolnelectric.eu for any udpated information.
Download Safety datasheets (SDS)

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EXAMPLES OF MATERIALS TO BE WELDED

Steel grades/Code	Type
General structural steels	
EN 10025	S355
Pipe material	
EN 10208-2	L360, L415, L445
API 5LX	X52, X56, X60, X65
Fine grained steels	
EN 10025 part 3	S355, S420, S460
EN 10025 part 4	S355, S420, S460
Low temperature steels	
EN 10028-4	11MnNi5-3, 13MnNi6-3, 15NiMn6 (12Ni14G1, G2)
EN 10222-3	13MnNi6-3, 15NiMn6

CALCULATION DATA

Sizes Diam. x length (mm)	Current range (A)	Current type	Arc time (S)*	Energy E(kJ)	Dep. rate H(kg/h)	Weight/ 1000 pcs (kg)	Electrodes/ kg weldmetal B	kg electrodes/ kg weldmetal 1/N
			- per electrode at max. current -					
2.5x350	55-80	DC+	57	103	0.72	19.5	88	1.71
3.2x350	80-140	DC+	65	218	1.3	37.4	44	1.64
3.2x450	80-140	DC+	79	263	1.4	48.5	33	1.59
4.0x350	120-170	DC+	74	344	1.6	52.7	30	1.57
4.0x450	120-170	DC+	100	463	1.7	69.8	21	1.45
5.0x450	180-240	DC+	103	723	2.5	104.8	14	1.48

*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
5.0	220A	210A	210A	170A		

REMARKS / APPLICATION ADVICE

Deviations:chemical composition:
Ni = 2.25 - 2.75% ISO: Ni = 2.6 - 3.8%