

Nyloid 2

CLASSIFICATION

AWS A5.11	ENiCrMo-6	A-Nr	-
ISO 14172	E Ni 6620 (NiCr14Mo7Fe)	F-Nr	43
		9606 FM	6

GENERAL DESCRIPTION

Basic high recovery all position electrode for welding low temperature steels
 Recovery of approximately 150%, providing high deposition rates
 Especially developed for welding 9% Ni steel
 Linear expansion coefficient equivalent to that of 9% Ni steel
 Excellent impact toughness at -196°C, reliable 0.2%-Yield strength
 Weldable on AC as well as DC+ polarity
 Only available in vacuum sealed Sahara ReadyPack® [SRP]

WELDING POSITIONS (ISO/ASME)



CURRENT TYPE

AC / DC +

APPROVALS

GL TÜV

5680 +

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

C	Mn	Si	Cr	Ni	Mo	Nb	Fe	W
0.05	3	0.4	13	bal.	6.0	1.5	6	1.5

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	-196°C
Required: AWS A5.11 ISO 14172 Typical values	not required min. 350 475	min. 620 min. 620 725	min. 20 min. 32 40	not required not required 100	90

PACKAGING AND AVAILABLE SIZES

SRP	Diameter [mm]	2.5	3.2	4.0	5.0
	Length [mm]	350	350	350	450
SRP	Pieces / unit	62	52	27	11
	Net weight/unit [kg]	1.7	2.2	1.8	1.5

Identification Imprint: NiCrMo-6 / NYLOID 2 Tip Color: white

Nyloid 2: rev. C-EN26-27/0717

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EXAMPLES OF MATERIALS TO BE WELDED

Steel grades	EN 10028-4	Mat. Nr	ASTM	UNS
9% Ni steel for LNG storage tanks	X8Ni9	1.5662	A353/A353M	
	X8Ni9 (9% Ni)	1.5662	A553/A553M Type I	
	(8% Ni)		A 553/A553M Type II	K71340
Low alloy steel for cryogenic applications	X12Ni5 (12Ni19)	1.5680		K41583
	10Ni14 (3.5% Ni)	1.5637	A333 Grade 3	
	12Ni14 (3.5% Ni)	1.5637	A203 Grade E	

CALCULATION DATA

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]			
2.5 x 350	70-100	AC	54	128	1.3	26.5	53	1.39
3.2 x 350	85-145	AC	63	229	1.8	43.6	31	1.37
4.0 x 350	140-190	AC	73	355	2.4	65.8	21	1.33
5.0 x 450	180-280	AC	94	764	3.7	133.5	10	1.35

*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	90 - 100A	90 - 100A	90 - 100A	90 - 100A	90 - 100A	80 - 100A
3.2	135 - 145A	135 - 145A	135 - 145A	125 - 135A	125 - 135A	120 - 135A
4.0	170 - 185A	170 - 185A	170 - 185A	140 - 165A		
5.0	220 - 270A	220 - 280A				

REMARKS / APPLICATION ADVICE

Recommended Heat-Input for plate thickness:

≤ 15 mm: 1.4 kJ/mm

15 - 20 mm: 1.6 kJ/mm

> 20 mm: 2.0 kJ/mm