NiCro 60/20

CLASSIFICATION

AWS A5.11	ENiCrMo-3	**A-Nr**	-	**Mat-Nr**	2.4621
ISO 14172	E Ni 6625 (NiCr22Mo9Nb)	**F-Nr**	43		
		9606 FM	6		

GENERAL DESCRIPTION

Fully basic Ni-base high CrMoNb alloyed austenitic all position electrode
Extreme high resistance to general and intergranular corrosion, pitting and crevice corrosion and stress corrosion cracking
Suitable for welding dissimilar joints; high resistance to hot cracking
High resistance to high temperature oxidation (max. 1200°C) and carburization
Good impact values at low temperatures (down to -196°C), suitable for 9% Ni steel

WELDING POSITIONS (ISO/ASME)

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

CURRENT TYPE

DC +

APPROVALS

TÜV

+

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

C	Mn	Si	Cr	Ni	Mo	Nb	Fe
0.03	0.5	0.35	22.0	62.0	9.0	3.4	0.9

MECHANICAL PROPERTIES, TYPICAL, ALL WELD METAL

	Condition	0.2% Proof strength (N/mm²)	Tensile strength (N/mm²)	Elongation (%)	Impact ISO-V(J) -196°C
Required: AWS A5.11		not required	min. 760	min. 30	not required
ISO 14172		min. 420	760	min. 27	not required
Typical values	AW	510	770	44	92

PACKAGING AND AVAILABLE SIZES

	Diameter (mm)	2.5	3.2	4.0
	Length (mm)	300	300	350
PE-Tube	**Pieces / unit**	94	61	45
	Net weight/unit (kg)	1.6	1.7	2.1

Identification Imprint: NiCrMo-3 / NICRO 60/20 Tip Color: green

NiCro 60/20: rev. C-EN23-01/02/16

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 updated information.
Fumes: Material Safety Data Sheets (MSDS) are available on our website.

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EXAMPLES OF MATERIALS TO BE WELDED

Steel grades	DIN/EN	Mat. Nr	ASTM/ACI	UNS
NiCrMo-steel type alloy 625 and welding dissimilar high NiCrMo-steels for corrosion and heat resisting purposes				
	X1NiCrMoCuN25-20-6	1,4529	Alloy 925	N08925
	X1NiCrMoCu25-20-5	1,4539	Alloy 904L	N08904
	X1CrNiMoCuN20-18-7	1,4547	Alloy 254	S31254
	X2NiCrAlTi32-20	1,4558	Alloy 800L	N08800
	G-X10NiCrNb32-20	1,4859		
	X10NiCrAlTi32-20	1,4876	Alloy 800/800H	N08800/-10
	NiCr22Mo6Cu	2,4618	Alloy G	N06007
	NiCr22Mo7Cu	2,4619	Alloy G-3	N06985
	NiCr21Mo6Cu	2,4641	Alloy 825hMo	N08821
	NiCr20CuMo	2.4660	Alloy 20	N08020
	NiCr15Fe	2,4816	B168-Alloy 600	N06600
	NiCr22Mo9Nb	2,4856	B443-Alloy 625	N06625
	NiCr21Mo	2,4858	B424-Alloy 825	N08825
	NiCr20Ti	2,4951	Alloy 75	N06075
	NiCr20TiAl	2,4952	Alloy 80A	N07080
Low alloy steels				
	10Ni14 (3.5% Ni)	1,5637	ASTM A333 Grade 3	-
	12Ni19, X12Ni5	1.5680	-	K41583
9% Ni steel for LNG storage tanks				
	X8Ni9 (9% Ni)	1,5662	A353/A353M	-
	X8Ni9 (9% Ni)	1,5662	A553/A553M Type I	-
	(8% Ni)		A553/A553M Type II	K71340

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
2.5 x 300	45-70	DC+	44	80	0.95	17.2	87	1.51
3.2 x 300	70-100	DC+	44	101	1.5	26.8	55	1.48
4.0 x 350	100-130	DC+	53	215	2.2	46.4	30	1.41

*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	60A	55A	60A	60A	60A	60A
3.2	90A	80A	85A	80A	80A	80A
4.0	120A	120A				

REMARKS / APPLICATION ADVICE

Welding with Heat-Input max. 1.5 kJ/mm
Interpass temperature max. 150°C

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