

International standards	Material No.	2.4648
	DIN 1736	EL-NiCr 19 Nb
	AWS A5.11	E NiCrFe-2 / MOD.

Approvals ---

Typical applications and characteristics Nickel base electrode with excellent weldability on AC. Suitable for joining and cladding low alloyed and alloyed steels, welding iron- and nickel base alloys and for dissimilar joints.
The austenitic deposit is insensitive to hot-cracking and free of embrittlement at high as well as at low temperatures, non-scaling up to 1000° C, and cold tough down to -196° C.
No diffusion of carbon into the weld metal at high temperatures.
Used for service-temperatures of more than 300° C in Chemical Industry, Petrochemical Industry, glassworks, civil engineering, repairing and maintenance workshops.

Operating temperature - 196° C up to 550° C

Base materials	2.4605 NiCr23Mo16Al	2.4856 NiCr22	2.4952 NiCr20TiAl
	2.4630 NiCr20Ti	Mo9Nb	1.4876 X10NiCrAlTi32-20
	2.4631 NiCr20TiAl	2.4858 NiCr21Mo	(Alloy 800)
	2.4669 NiCr15Fe7TiAl	2.4867 NiCr60-15	1.4958 X5NiCrAlTi31-20
	2.4816 NiCr15Fe	2.4858 NiCr21Mo	1.4959 X8NiCrAlTi32-21
	2.4817 LC-NiCr15Fe	2.4869 NiCr80-20	(Alloy 800 HT)
	2.4851 NiCr23Fe	2.4870 NiCr 10	
		2.4851 NiCr23Fe	

Dissimilar joints:

Ni-base alloys to austenitic steels/ Ni-base alloys to ferritic steels/ austenitic to ferritic steels up to 550° C

Mechanical properties of all-weld metal

(typical values)

Tensile strength R_m N/mm ²	Yield strength $R_{p0,2}$ N/mm ²	Elongation A_5 %	Impact strength ISO – V J at -196 ° C
650	380	35	> 32

Weld metal analysis
(typical, wt. %)

C	Mn	Mo	Cr	Ni	Fe	Nb
< 0,04	3,5	1	19	Bal.	< 4	2

Current = + / ~ , 50 V

Welding positions PA, PB, PC, PD, PE, PF

Rebaking 1 h, 350 °C + / - 10 °C (if required)

Dia./Length	Amperage (A)	Pcs./ packet	Pcs./ carton	kg / 1000	kg / packet	kg / carton
2,5 x 300	60 - 100	209	838	19,1	4,0	16,0
3,2 x 350	80 – 140	133	531	37,7	5,0	20,0
4,0 x 350	120 - 180	88	351	57,0	5,0	20,0
5,0 x 450	150 - 240	52	209	114,6	6,0	24,0