

selectarc

Ni690

Nickel base Electrode


FSH WELDING GROUP
INNOVATIVE WELDING CONSUMABLES
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Classification

AWS A5.11 : E NiCrFe-7

EN/ISO 14172: E-Ni6152
NiCr30Fe9Nb

Description & Applications

High Chromium content Nickel base electrode with a basic type coating, used for repair and fabrication welding of alloy 690 and 600. Also applied for dissimilar joints between stainless steels and carbon steels. Stable arc with low spatters, easy slag removal and regular weld beads.

Main applications: Nuclear power plants, chemical industries...

Base materials

UNS	Alloy	EN	Material N°
N06690	690	NiCr29Fe	2.4642
N06600	600	NiCr15Fe	2.4816

Typical Weld Metal Composition (%)

C	Si	Mn	Cr	Nb	Fe	Mo	Cu	Ni
0.03	0.4	4.0	28.5	1.2	7.0	0.2	0.1	Rem.

All Weld Metal Mechanical Properties

$R_{p0.2}$ (MPa)	R_m (MPa)	A_5 (%)	KV (J)
430	650	40	+20°C >100

Welding Current & Instructions

Electrode	ØxL (mm)	2,5x300	3,2x350	4,0x350	5,0x450
Current	(A)	60-75	75-100	90-125	120-160

Redrying 1h at 250-300°C, if necessary. Hold a short arc and guide the electrode steep, only with a slight inclination against the vertical. Select low amperage giving still a stable arc and weave only slightly to keep the dilution with the base material low and to get a low heat input. Nickel base material does not need any preheating and the interpass temperature should be <150°C. A post weld heat treatment has no influence on the weld deposit.



1G/PA



2F/PB



2G/PC



3G/PF



4G/PE

