



Selectarc B94

Basic coated NiCrFe- Electrode
For alternative current

Classification

AWS A5.11 : ENiCrFe-2 ISO 14172 : E-Ni 6092 (NiCr16Fe12NbMo)
UNS : W86133

Description & Applications

Basic coated electrode with 150% recovery, for welding Nickel-Chromium-Iron alloys to themselves and to lower alloyed steels as well as for welding cryogenic 5 and 9% Ni-steels and high temperature steels, for CrMo-creep resistant steels to stainless steels, for repair on HK and HP reformer grades. The electrode is especially designed to weld with alternating current.

Base materials

| UNS | Alloy | DIN | Material N° |
|--------|-------|-----------------|-------------|
| | 5%Ni | 12Ni19 | 1.5680 |
| K81340 | 9%Ni | X8Ni9 | 1.5662 |
| N06600 | 600 | NiCr15Fe | 2.4816 |
| N08800 | 800 | X10NiCrAlTi3220 | 1.4876 |
| N08810 | 800H | X5NiCrAlTi3120 | 1.4958 |
| J94204 | HK40 | GX40CrNiSi25 20 | 1.4848 |
| J95705 | HP30 | GX40NiCrNb35 25 | 1.4852 |

Typical Weld Metal Composition (%)

| C | Si | Mn | Cr | Nb | Fe | Mo | Ni |
|------|-----|-----|------|-----|-----|-----|------|
| 0.06 | 0.5 | 2.8 | 16.0 | 1.7 | 7.0 | 1.8 | base |

All Weld Metal Mechanical Properties

| R _{p0.2} (MPa) | R _m (MPa) | A ₅ (%) | KV (J) |
|---------------------------|------------------------|----------------------|-------------------------|
| >380 | >620 | >30 | +20°C >80 -196°C >60 |

Welding Current & Instructions

| | | | | |
|-----------|------------|---------|---------|---------|
| Electrode | ØxL (mm) | 2,5x350 | 3,2x350 | 4,0x350 |
| Current | (A) | 70-90 | 90-120 | 120-140 |

Redrying 1 h at 300°C. Joints to weld must be clean, exempt from grease, cracks. Guide electrodes with a slight declination, weld with a short arc and prevent a high heat input by applying the stringer bead technique (weaving max. 2-3 times core wire diameter). For repair welding a preheating, depending on the carbon equivalent of the base material, in the range of 100-250°C, is recommended.

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= -, + ~ 70V

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