Soudotec **1690** DC+ **NICKEL ALLOY**

DESCRIPTION

Extremely versatile high alloy core Inconel® type electrode for welding nickel alloys, stainless steels and steels difficult to weld together or as dissimilar assemblies.

CHARACTERISTICS

- **Superior resistance to severe stress**
- Excellent corrosion, oxidation and acid resistance
- Exceptional mechanical properties at high or very low temperatures
- Very high elongation
- Maximum resistance to hot cracking
- Excellent all-position weldability

TYPICAL APPLICATIONS

Excellent for dissimilar metals and heavy sections, refractory steels, foundry oven parts, valve seats, atomic and petrochemical industries, cryogenic steels, boilers, heat exchangers, shafts, etc.

PROCEDURE

Remove any trace of oil, grease and dirt from the surface. Gouge a U-groove on heavy sections with the **Soudotec 212 SP or Soudotec G12** electrode. Weld at low amperage using the smallest diameter to limit heat input while maintaining a short arc and minimum weaving. Remove slag between each pass. Always strike the arc on a deposited bead, and never on the base metal. Preheating is generally only required for heavy or restrained parts and high alloy steels. Only use perfectly dry electrodes.

MECHANICAL PROPERTIES

Tensile strength:	100 000 psi (689 MPa)
Yield strength:	70 000 psi (483 MPa)
Elongation:	40 - 43%
Impact (Charpy V):	80 J at -196ºC

WELDING PARAMETERS

Diameter:	4.0 mm (5/32")	3.2 mm (1/8")	2.5 mm (3/32")
Amperage:	100 - 120 A	75 - 100 A	50 - 75 A

Also available in solid MIG wire: **Soudotec M1690**, flux-cored wire: **Soudotec FC 1690G,** TIG rods: **Soudotec T1690** and in "Jet type" electrodes (140%): **Soudotec 1690 SP**

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Specialized welding alloys and technology. For technical assistance or for ordering:

FSH WELDING Canada
Membre de / Member of SELECTARC GROUP - FRANCE

info@fsh-welding.ca
www.fsh-welding.ca

2204, 46e avenue
Lachine (Mtl),Québec
Canada H8T 2P3

Tél : 514.631.7670
1.800.361.9097