

**FC 1690G**

DC+

NICKEL ALLOY**DESCRIPTION**

Extremely versatile high alloy Inconel® type **gas shielded flux-cored** wire for welding nickel alloys, stainless steels, **difficult to weld steel** together or as dissimilar assemblies.

CHARACTERISTICS

- **Excellent all-position weldability**
- Excellent 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

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 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.

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 -196°C

WELDING PARAMETERS

Gas:	100% CO ₂ or Ar/CO ₂ mixture	
Diameter:	.045" (1.2 mm) 1/16" (1.6 mm)	
Amperage:	100 – 200 A	160 – 250 A
Voltage:	22 – 28 V	25 – 33 V
Stick-out:	1/2" – 5/8"	1/2" – 3/4"
Gas flow rate (p.c.h):	40 – 50	40 - 50
Packaging:	13.6 Kg spool (30lb): 1.2 mm and 1.6 mm	

Also available in solid MIG wire: **Soudotec M1690**, 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: