

MG 690

Universal electrode for high heat and cryogenic applications



GENERAL CHARACTERISTICS:

The weld metal of MG 690 has excellent strength and oxidization resistance at extreme temperatures. The universal properties give it the capability to be used as a joining electrode, a cladding or wearfacing electrode. The special flux coating gives it a deposition rate approximately 40% faster than conventional alloys.

APPLICATIONS:

Excellent for use on parts that are subjected to thermal cycling even to sub-zero temperatures. Used where good weld ductility is needed when joining or repairing massive sections. It is used on flame hardening equipment, heat treat equipment, cryogenic equipment and dissimilar combinations of steels, stainless steels, Monels and Inconels.

TECHNICAL DATA:

Typical Tensile Strength	Up to 85,000 psi (586 N/mm ²)
Elongation	30%
Heat Resistance	Excellent
Cryogenic Use	Excellent
Scaling Resistance	Excellent
Current	DC reverse polarity (electrode +)

Diameter	Amperage
3/32" (2.4mm)	80-120
1/8" (3.2mm)	120-150
5/32" (4.0mm)	130-180

PROCEDURE:

Surface should be clean of any grease, oil, paint, etc. Joint design and preparation should allow for the low penetration characteristics of MG 690, usually about 25% more opening than conventional joint openings. The electrode position should be about 20° off vertical while welding in flat position. Slight weaving is generally desirable. Slag should be removed between passes. Slag should be removed from surface especially for high service temperature applications.

