

# MG 518



**Premium quality low hydrogen electrode with Moisture Guard™ coating for x-ray quality welds on construction steels.**

## GENERAL CHARACTERISTICS:

MG 518 is a premium quality low hydrogen electrode designed and tested for joining construction grade steels in high restraint situations. MG 518 features a coating resistant to atmospheric moisture pickup; helping to prevent embrittlement, underbead cracking and other welding issues linked to hydrogen inclusion. Weldability is excellent on both AC and DC reverse polarity. The first choice for x-ray quality welds featuring high impact resistance.

## APPLICATIONS:

Used primarily on carbon and medium tensile steels, especially under conditions of restraint. Used extensively on construction grades, for shipbuilding, pipe lines, boiler plate, cast steel and cryogenic grades.

## TECHNICAL DATA:

|                          |   |
|--------------------------|---|
| Tensile Strength         | Up to 76,000 psi (524 N/mm <sup>2</sup> ) |
| Yield Strength           | Up to 69,000 psi (476 N/mm <sup>2</sup> ) |
| Elongation (in 2 inches) | 31-33%                                    |
| Reduction in Area        | 75-80%                                    |
| Current                  | AC or DC reverse polarity                 |
| Specifications           | AWS/ASME SFA 5.1 Class E7018              |

| Diameter      | Amperage |
|---------------|----------|
| 3/32" (2.4mm) | 60-100   |
| 1/8" (3.2mm)  | 110-150  |
| 5/32" (4.0mm) | 140-200  |
| 3/16" (5.0mm) | 220-280  |
| 1/4" (6.4mm)  | 300-375  |

## PROCEDURE:

Area to be welded should be clean and free of surface contamination such as rust, scale, grease, etc. On DC, use reverse polarity (electrode +). Preheat of 300°-450°F should be employed with heavy sections and hardenable grades of base metal. For highest x-ray quality, maintain a short arc gap. On vertical welds, start at bottom and weave slightly while pausing at the edges. For root passes, set a minimum gap (3/32" for 1/8" electrodes), and run stringer beads. For fill and cover passes, a weaving technique is best employed.

