



E11018M

Ultra high strength Low hydrogen Electrode

MAXIMUM STRENGTH, CRITICAL PERFORMANCE, COMPLETE CONFIDENCE

ISOARC E11018M is a premium low hydrogen iron powder electrode developed for welding ultra-high-strength low alloy steels requiring exceptional tensile strength, fracture toughness and crack resistance.

Designed for demanding structural, military, mining and heavy engineering applications, ISOARC E11018M deposits a high-strength weld metal capable of matching modern quenched-and-tempered steels while maintaining excellent impact toughness and low hydrogen characteristics.

E11018M provides smooth arc characteristics, excellent slag removal, outstanding weld integrity and reliable mechanical performance for the most demanding fabrication applications. Premium E11018M electrodes are commonly used for HY-80 and HY-100 steels and other high-strength structural applications.

Features & Benefits	Typical Applications
■ Premium Low Hydrogen Iron powder coating ■ Excellent crack resistance ■ Outstanding impact toughness ■ Suitable for critical structural fabrication ■ Excellent radiographic quality ■ Smooth, stable arc and easy slag removal ■ Suitable for AC and DCEP ■ Ideal for multi pass welding	■ Mining Equipment ■ Defence equipment ■ Pressure Vessels ■ Heavy Fabrication ■ Crane Booms ■ Military Vehicles ■ Repair of high strength steels ■ Heavy Transport equipment

Technical Information

Classification	AWS A5.5 E11018M
Polarity	AC & DCEP
Welding Positions	Flat ■ Horizontal ■ Vertical Up ■ Overhead
Base Materials	ASTM A514, HY80, HY-100, HSLA structural Steels, High Strength Steels
Storage	Store dry. After opening vacuum pack store in Holding oven 120–150°C

Mechanical Properties	Typical	Typical Chemical Composition	
Tensile Strength	> 760 MPa	C 0.05 - 0.08	Molybdenum 0.3 - 0.6
Yield Strength	≥ 655 MPa	Mn 1.4 - 1.8	Ni 1.5 - 2.5
Elongation	≥ 16%	Si 0.3 - 0.5	Cr 0.2 - 0.6

Current Range	
2.5mm	70 - 100A
3.2mm	100 - 140 A
4.0mm	140 - 190A
5.0mm	180 - 250A

Manufactured by Thuthuka Welding Products (Pty) Ltd

Manufactured under an ISO 9001 quality management system using internationally proven formulations to deliver consistent welding performance and dependable quality.