



ISOARC
WELDING PRODUCTS

E7018-H4R

Engineered for critical weld integrity

PREMIUM LOW HYDROGEN ELECTRODE FOR CRITICAL APPLICATIONS

ISOARC E7018-H4R is a premium basic-coated low hydrogen electrode specifically developed for the welding of carbon and low alloy steels in critical fabrication where weld quality, toughness and resistance to hydrogen cracking are essential.

Manufactured using tightly controlled production processes and rigorous quality assurance, ISOARC E7018-H4R provides exceptionally low diffusible hydrogen levels, excellent mechanical properties and outstanding moisture resistance. The electrode delivers smooth arc characteristics, easy restriking, excellent slag removal and superior weld appearance while complying with the stringent quality requirements demanded by the petrochemical, power generation, mining and heavy engineering industries.

Features & Benefits	Typical Applications
■ H4R controlled low hydrogen classification ■ Manufactured for critical welding applications ■ Excellent resistance to hydrogen-induced cracking ■ Excellent impact toughness ■ Superior mechanical properties ■ Smooth, stable arc ■ Suitable for AC and DCEP ■ All-position welding (except vertical down)	■ for use on petrochemical plants ■ Oil and gas facilities ■ Pressure vessels ■ Boilers ■ Storage tanks ■ Mining equipment ■ Power Stations ■ Heavy fabrication

Technical Information

Classification	AWS A5.1 E7018-H4R
Polarity	AC / DCEP
Welding Positions	Flat ■ Horizontal ■ Vertical Up ■ Overhead
Base Materials	Carbon steels and low alloy steels
Storage	Store dry. After opening vacuum pack store in Holding oven 120–150°C

Mechanical Properties	Typical	Typical Chemical Composition	
Tensile Strength	470 – 540 MPa	C 0.05 - 0.08	P + S <0.025
Yield Strength	≥ 390 MPa	Mn 0.8 - 1.2	Hydrogen content < 4mg
Elongation	≥ 22%	Si 0.06 - 0.09	

Current Range	
2.5mm	70 - 100A
3.2mm	90 - 140A
4.0mm	120 - 180A
5.0mm	170 - 240A



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.