



Arc Furnace Shell Crack Repair

Electrode for joining high alloy steels subjected to thermal cycling and joining without effects of HAZ

Typical Applications:

Maintenance and repair of high alloy steels subjected to cryogenic & thermal cycling, joining & repair of heavily restrained and massive sections, draw bars & connecting hitches, tongs, flame hardening equipment, heavy cross sections gears, furnace parts, kiln tyres.

Outstanding Features:

- Excellent crack resistance, unaffected by base metal dilution.
- Suitable for both high temperature service / thermal cycling and sub-zero service.
- Exceptional combination of tensile properties and impact strength.
- Excellent oxidation and scaling resistance.
- No effects on heat treatment.

Recommendation:

For joining & overlaying of high alloys subjected to thermal cycling or wide temperature range. Recommended for joining where PWHT is 100% not

possible. Can be recommended for welding high section thickness with out HIC.

Procedure:

Ensure welding surfaces are free from contaminations. For steels with carbon equivalent to above 0.45% preheating between 150°C to 300°C is necessary. Operate at lowest possible current setting. Weld with short arc and stringer beads avoid weaving, chip slag between passes & peen. Use stainless steel wire brush to remove slag residues.

Recommended Amperages:

Size (mm)	I - Range	II - Range
2.50	60 - 80	50 - 70
3.15	80 - 100	70 - 90
4.00	110 - 130	90 - 110

Tensile Strength: 63 Kg/mm²
(90,000 psi)

Elongation: 45%