OK 74.78

A basic coated low hydrogen electrode for Welding HSLA steels with good notch toughness



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Classification

AWS A 5.5: E 9018-D1

IS 1395: E 63BD1241

DESCRIPTION

OK 74.78 is a basic coated low hydrogen electrode for welding high tensile steel with good notch toughness down to -50°C. OK 74.78 is therefore suitable for welding mild & low alloy steels for structures working at low temperatures, e.g. holders for liquid petroleum gas (LPG). The moisture content of the coating being low, makes OK 74.78 suitable for HSLA steels when preheating cannot be applied. The risk of grain boundary cracking is very low when welding with OK 74.78.

APPROVALS: RDSO

WELDING CURRENT: DC+, AC 70V(min)

TYPICAL APPLICATIONS

The good notch toughness makes OK 74.78 suitable for enclosed joint welding of rail and for cladding on rail especially when a hardness of about 250 HV is desired. OK 74.78 is therefore highly suitable for welding of 'CONCOR' wagon type applications of the Indian Railways. OK 74.78 is also suitable for following high tensile steels: DOMEX 400 TE, 450 & 480, FAMA 35, OX 540E, OX 542E, OX 602, OX 702, OX 802, and VSS-T1 steels.

TYPICAL ALL WELDMETAL PROPERTIES

| Chemical Composition (%) | | | on (%) | Mechanical Properties | |
|--------------------------|------|----|--------|-----------------------|-----------------------|
| С | 0.08 | Mn | 1.5 | YS | 530 N/mm ² |
| S | 0.02 | Р | 0.025 | UTS | 640 N/mm ² |
| Si | 0.75 | Мо | 0.35 | EL (L-5d) | 22% |
| | | | | Impact (CVN) at -50°C | 50J |
| | | | | at RT | 100J |

CURRENT RANGE & PACKING DATA

| Size | Length | Current Range | No. of Electrodes in a | |
|------|--------|----------------------|------------------------|---------------|
| (mm) | (mm) | (Amps) | Carton | Cardboard box |
| 3.15 | 450 | 90-125 | 90 | 360 |
| 4.00 | 450 | 120-180 | 60 | 240 |
| 5.00 | 450 | 160-240 | 40 | 160 |

PACKING: Electrodes are packed in cartons and four of these cartons are shrink wrapped in a cardboard box.