

# ROYAL 8018 B3L (E 8018 B3L)

AWS : SFA 5.5, E 8018 B3L IS: 1395E 55 B-B3-26 Fe EN ISO 3580 A E CrMo 2 L B 32 H5

## Applications

Suitable for welding 2.25% Cr, 1% Mo steels. Low alloy steel boiler and pipelines operation Repair of high tensile steel castings. Pipelines for oil refinery, power plant at service

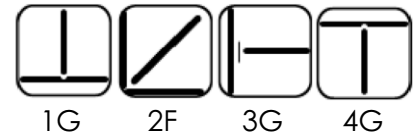
## Characteristics on Usage

A medium heavy coated controlled Carbon, low Hydrogen Iron powder type electrodes, welding in all position used for welding of similar Cr-Mo steel. Its deposition efficiency is 106% approximately, the weld metal is of radiographic quality and has creep resistance up to 600°C The weld metal gives 2.25% Cr and 1.0% Mo having excellent welding characteristics. Dry the

## Notes On Usage

- Preheat at 200 - 350 °C and postheat at 690 ± 15 °C.
- Dry the electrode at 250 - 300 °C for 60 Min- before use.

## Welding Positions



LOW ALLOY HIGH TENSILE ELECTRODES

## Chemical Composition Of Weld Metal

| C%       | Mn%      | Si%      | S%        | P%        | Cr%      | Mo%       |
|----------|----------|----------|-----------|-----------|----------|-----------|
| 0.050Max | 0.90 Max | 0.80 Max | 0.030 Max | 0.030 Max | 2.0-2.50 | 0.90-1.20 |

## Mechanical Properties Of Weld Metal

(After PWHT at 690 ± 15oC for 1 Hr soaking)

| U.T.S.<br>(N/mm <sup>2</sup> ) | Y.S.<br>(N/mm <sup>2</sup> ) | ELONGATION<br>( L = 4d ) % | Creep strength<br>AT 550 oC | 1% offset in<br>10000 Hrs<br>AT 575 oC |
|--------------------------------|------------------------------|----------------------------|-----------------------------|--|
| 550 Min                        | 460 Min                      | 17 % Min                   | 12 Kg/mm2                   | 9.0Kg/mm2                              |

## Packing and Welding Current

| SIZE ( mm ) | KG PER PACKET | KG PER CARTON | Current (Amps) | In Amps |
|-------------|---------------|---------------|----------------|---------|
| 2.50 x 350  | 5             | 20            | AC / DC (+)    | 60-90   |
| 3.15 x 450  | 5             | 20            |                | 100-130 |
| 4.00 x 450  | 5             | 20            |                | 140-180 |
| 5.00 x 450  | 5             | 20            |                | 190-230 |