

**ROYAL CHROME – 1 (E 8018-B2)**

AWS : SFA 5.5, E 8018-B2

IS : 814E 55 BB226Fe

**Applications**

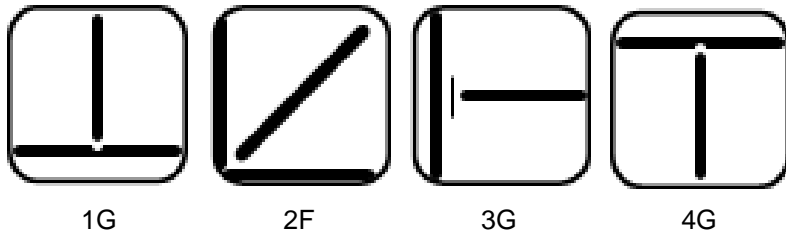
Joining of crack resistant steels, low alloy steels. Welding on equipment of Oil refineries, pipeline & high temperature synthetic chemical industries. Electric power plant.

**Characteristics on Usage**

It is a hydrogen controlled basic iron powder type all position electrode running with smooth & stable arc with easily detachable slag. It is designed for welds of radiographic quality and used in joining creep resistant steel and low alloy steel. The weld metal possess excellent mechanical properties and resistance to cracking caused by heavy stresses or hydrogen. Redry the electrode at 200°C – 250°C for one hr. before welding.

**Notes On Usage**

- ✍ 1) Preheat at 150 - 250 °C and post heat at  $690 \pm 15$  °C.
- ✍ 2) Dry the electrode at 350-400 °C for 60 Min- before use .
- ✍ 3) Keep the arc as short as possible.

**Welding Positions****Chemical Composition Of Weld Metal**

| C%          | Mn%      | Si%      | S%       | P%       | Cr %       | Mo %        |
|-------------|----------|----------|----------|----------|------------|-------------|
| 0.05 - 0.12 | 0.90 Max | 0.80 Max | 0.03 Max | 0.03 Max | 1.0 - 1.50 | 0.40 - 0.65 |

**Mechanical Properties Of Weld Metal**

(After PWHT at  $690 \pm 15^\circ\text{C}$  for 1 Hr soaking)

| U.T.S.               | Y.S.                 | ELONGATION   | Hydrogen<br>(Mercury<br>method)<br>in 100grm weld<br>metal |
|----------------------|----------------------|--------------|--|
| (N/mm <sup>2</sup> ) | (N/mm <sup>2</sup> ) | ( L = 4d ) % |  |
| 550 Min              | 460 Min              | 19 % Min     | 5ml Max  |

**Approvals**

E.I.L., I.B.R., K.N.P.C., B.H.E.L., IOCL, N.P.C.I.L.

**Packing and Welding Current**

| SIZE ( mm ) | PIECES PER<br>PACKET | PIECES PER<br>CARTON | Current<br>(Amps) | In Amps |
|-------------|----------------------|----------------------|-------------------|---------|
| 2.50 x 350  | 225                  | 900                  | AC/DC (+)         | 70-100  |
| 3.15 x 450  | 100                  | 400                  |                   | 100-140 |
| 4.00 x 450  | 70                   | 280                  |                   | 140-180 |
| 5.00 x 450  | 45                   | 180                  |                   | 180-230 |