## RATNA 2594

# An electrode specially designed for Super duplex Stainless steel matrix with Balance PREN 40 .

CLASSIFICATION : AWS/SFA-5.4: E 2594-16

#### APPROVAL :

**CHARACTERISTICS** : An electrode specially designed for super duplex stainless steel nominal composition of weld metal is 25.5Cr, 10Ni, 4Mo, and 0.25N. its gives pitting resistance equivalent number (PREN), is at least 40, this number is a semi-quantitative indicator of resistance to pitting in aqueous chloride-containing environments.

#### APPLICATION

- 1) Suitable for the welding of type 2507 super duplex stainless steels UNS S32750 ( wrought ) and UNS J93404 (cast.),
- 2) Suitable for similar compositions..
- 3) Welding of carbon and low alloy steels to duplex stainless steels as well as to weld standard duplex stainless steels such as type 2205.

#### **RE-DRY CONDITION** : Re-Dry the electrode at 350°C for 1 hrs before use.

### ALL WELD CHEMICAL COMPOSITION %

| С    | Mn    | Si   | S     | Р     | Cr     | Ni    | Cu   | Mo   | Ν     |  |
|------|-------|------|-------|-------|--------|-------|------|------|-------|--|
| 0.04 | 0.50- | 1.00 | 0.030 | 0.040 | 24.00- | 8.00- | 0.75 | 3.50 | 0.20- |  |
| max  | 2.00  | Max  | Max   | Max   | 27.00  | 10.50 | max  | 4.50 | 0.30  |  |

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#### ALL WELD MECHANICAL PROPERTIES( As Welded ):

| YS<br>(0.2%)<br>(N/mm <sup>2</sup> ) | UTS<br>(N/mm <sup>2</sup> ) | EL %<br>(l=5d) | Hardness<br>(BHN) |
|--------------------------------------|-----------------------------|----------------|-------------------|
| 550 Min.                             | 760 Min.                    | 15 Min.        | 250-300           |

#### DIEMENSION, CURRENT CONDITION & PACKING DATA

| Size(mm)         | Size(inch)   | Current Condition | kg/packet. | kg/case. |
|------------------|--------------|-------------------|------------|----------|
| (Dia)            | (Dia)        | (DC+/AC) Amps     |            |          |
| 2.50/ 2.40 X 350 | 3/ 32" X 14" | 70-100            | 2          | 20       |
| 3.15/ 3.20 X 350 | 1/ 8" X 14"  | 90-120            | 2          | 20       |
| 4.00 X 350       | 5/ 32" X 14" | 120-160           | 2          | 20       |
| 5.00 X 350       | 3/16" X 14"  | 160-200           | 2          | 20       |

Customer packing on request.