

# GRINOX 10

**AN EXTRUDED, RUTILE BASED HEAVY COATED ELECTRODE FOR WELDING 25/20 CHROMIUM NICKEL STAINLESS STEEL.**

**IDENTIFICATION**

GRINOX 10 E310-16

**CLASSIFICATION**

AWS A 5.4: E 310-16, IS: E25.20 R 26 X,  
DIN 8556 E25.20R 23

**DESCRIPTION**

Weldable in all positions. Arc striking and re-striking properties are excellent. Arc is soft & stable. The spatter is very low and the slag is easy to remove. The weld bead is finely-rippled, smooth and regular. The deposit is highly resistant to cracking. Scale resistance up to 1000°C. The deposited weld metal is of radiographic quality.

**WELD METAL ANALYSIS (RANGE) %**

| C           | Mn        | Si       | S        | P        | Cr          | Ni           | Mo       | Cu       |
|-------------|-----------|----------|----------|----------|-------------|--------------|----------|----------|
| 0.08 - 0.16 | 1.0 - 2.5 | 0.75 max | 0.03 max | 0.03 max | 25.0 - 28.0 | 20.0 - 22.50 | 0.75 max | 0.50 max |

**MECHANICAL PROPERTIES (RANGE)**

| TS (N/mm2) | EL (%)<br>(L=4D) | CVN Impact Value |          |
|------------|------------------|------------------|----------|
|            |                  | Temp             | Joules   |
| 560 - 660  | 30 - 40          | 27°C             | 70 - 120 |

**TYPICAL APPLICATIONS**

For joining the above heat resisting steels and also for surfacing unalloyed, low/high alloy and cast steels. Furnace fabrication, apparatus, steam boilers, piping & fittings, textile, paper, paint, rubber and glass industries, heat treatment shops, gas turbines, oil refineries, furnace fabrication, etc. Highly stressed corrosion-resistant Stainless steel containing about 25% Chromium & 20% Nickel. Also for Stainless Steel AISI grades 309 & 310 and clad steels. Also used for joining dissimilar steels, straight Chromium Steels, welding intermediate zones between mild steel and Stainless Steels, joining difficult alloy/High Carbon Steels.

**WELDING PROCEDURE**

The base metal should be free from oil, Grease or Dirt before welding. Keep a short arc - length. The weld bead should be cleaned with stainless steel brush.

**FERRITE NUMBER OF THE WELD : 0**

**WELDING POSITION :**



**PACKING PARAMETERS**

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| Size (mm)   | Length (mm) | AMPS<br>AC 70 (OCV) /<br>DC (+) | Packing / Box<br>(kg) | Packing / Box<br>(Pcs) |
|-------------|-------------|---------------------------------|-----------------------|------------------------|
| 2.5         | 350         | 60 - 90                         | 2 x 5 = 10            | 94 x 5 = 470           |
| 3.15 / 3.20 | 350         | 80 - 110                        | 2 x 5 = 10            | 60 x 5 = 300           |
| 4           | 350         | 110 - 140                       | 2 x 5 = 10            | 38 x 5 = 190           |
| 5           | 350         | 140 - 180                       | 2 x 5 = 10            | 24 x 5 = 120           |