



# STRATA INTERNATIONAL LTD.

SUPERIOR PRODUCTS FOR MAINTENANCE AND REPAIR

**STRATA 570 – Electrode for welding high sulphur and high tensile steels. Also for T.1 steels**

## FEATURES & APPLICATIONS

Structural and repair welds on high strength fine grained steels.

Low alloy, high strength AC/DC electrode for joining low and medium alloy construction steels

- Extra low moisture content is below .14%
- Smooth running AC/DC coating operates in all positions
- Low spatter yield, self releasing slag and uniform rippled deposit

## ALL WELD METAL ANALYSIS (TYPICAL WEIGHT %)

**Microstructure:** In the as welded condition, the microstructure is ferritic/bainitic with a proportion of acicular ferrite.

**Flux Colour:** Grey

| C    | Mn  | S    | Si | P    | Cr  | Ni   | Mo  | Fe  |
|------|-----|------|----|------|-----|------|-----|-----|
| .059 | 1.3 | .006 | .5 | .012 | .32 | 1.91 | .37 | Bal |

## TYPICAL MECHANICAL PROPERTIES

### Undiluted Weld Metal

Tensile Strength  
Yield Strength  
Elongation  
Impact Energy

### Maximum Value Up To

120,000 PSI (845 MPa)  
96,000 PSI (665 MPa)  
23%  
82J (60ft. lbs.): 68°F (20°C)  
50J (36ft. lbs.): -60°F (-51°C)



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## WELDING CURRENT & INSTRUCTIONS

**Recommended Current:** DC Reverse (+) or AC

| Diameter (mm)    | 3/32 (2.5) | 1/8 (3.25) | 5/32 (4.0) | 3/16 (5.0) |
|------------------|------------|------------|------------|------------|
| Minimum Amperage | 65         | 100        | 140        | 190        |
| Maximum Amperage | 100        | 140        | 190        | 250        |

**Welding Techniques:** For the majority of materials to be welded with these electrodes, minimum preheats between 212°F (100°C) and 392°F (200°C) are required to avoid hydrogen induced “cold” cracking. Remove all surface contaminants. Maintain a short arc gap and use a stringer or slight weave technique. Chip slag thoroughly between passes.

**Welding Positions:** Flat, Vertical up, Vertical down, Horizontal, Overhead

**Deposition Rates:**

| Diameter (mm) | Length (mm) | Weldmetal/<br>Electrode | Electrodes<br>per lb (kg) of<br>Weldmetal | Arc Time of<br>Deposition<br>min/lb (kg) | Amperage<br>Settings | Recovery<br>Rate |
|---------------|-------------|-------------------------|---|--|----------------------|------------------|
| 3/32 (2.5)    | 14" (350)   | .42oz (12g)             | 38 (83)                                   | 38 (84)                                  | 80                   | 115%             |
| 1/8 (3.25)    | 14" (350)   | .59oz (17g)             | 27 (60)                                   | 21 (47)                                  | 115                  | 115%             |
| 5/32 (4.0)    | 14" (350)   | 1.1oz (30g)             | 15 (32)                                   | 18 (39)                                  | 175                  | 115%             |
| 3/16 (5.0)    | 14" (350)   | 1.8oz (50g)             | 9 (20)                                    | 13 (28)                                  | 220                  | 115%             |

## APPROXIMATE ELECTRODE PACKAGING & DIMENSIONS

| Diameter (mm) | 3/32 (2.5) | 1/8 (3.25) | 5/32 (4.0) | 3/16 (5.0) |
|---------------|------------|------------|------------|------------|
| Length (mm)   | 14" (350)  | 14" (350)  | 14" (350)  | 14" (350)  |
| Electrodes/lb | 21         | 12         | 8          | 6          |
| Electrodes/kg | 46         | 26         | 18         | 13         |

**PROLINE**  
professional welding supplies

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