

## IMPRESSED CURRENT ANODES

# Durichlor 51 Solid Rod

## Cast Iron Anodes

### Proven Long-Life Protection

High silicon cast iron anodes have been used for more than four decades to protect buried and submerged structures from corrosion. Over this time period, they have proven to be one of the most reliable protection materials available. To meet the large demand for this product, Corrpro manufactures a wide assortment of solid cast iron anodes for use on all types of structures. The anodes are cast using the Durichlor 51 alloy. This special alloy composition gives Corrpro anodes added strength. It also allows the anodes to form a thin film of silicon dioxide on their surface, which reduces the anode's rate of consumption. Consumption ratings for solid Corrpro cast iron anodes are from 0.5 to 1.0 lbs./amp.-yr. in sea water. The anode's recommended operating current density is at or below 1 amp./ft.<sup>2</sup>

To compensate for end-effect, which causes increased consumption at the longitudinal ends of an anode, Corrpro solid cast iron anodes are back beveled with more material near the connection. A choice between epoxy encapsulated, epoxy cap, or heat-shrink cap connection sealants is also offered. Regardless of which sealant is chosen, the wire-to-anode connection resistance will be less than or equal to 0.004 ohms.



### Typical Applications

Solid cast iron anodes can be used in both soil and water electrolytes. Their unique chemical composition makes them effective in saline mud, brackish water, and other environments containing chloride ions. The anodes also perform well in deep and conventional groundbed applications, where halogen gases are often generated. While the anodes may be installed either bare or in a backfill, improved operating efficiency can be obtained with the use of a backfill in non-aqueous soil applications. The backfill increases the anode's discharge area and lowers its consumption rate to 0.25 lbs./amp.-yr. Corrpro cast iron anodes are available bare and prepackaged in a Spira-Pak<sup>®</sup> canister containing a coke-breeze backfill.

| CHEMICAL COMPOSITION |               |
|----------------------|---------------|
| Element              | Content %     |
| C                    | 0.70 – 1.10   |
| MN                   | 1.50 Max      |
| Si                   | 14.20 – 14.75 |
| Cr                   | 3.25 – 5.00   |
| Mo                   | 0.20 Max      |
| Cu                   | 0.50 Max      |
| Iron                 | Remainder     |



### Corrpro Companies Europe Limited

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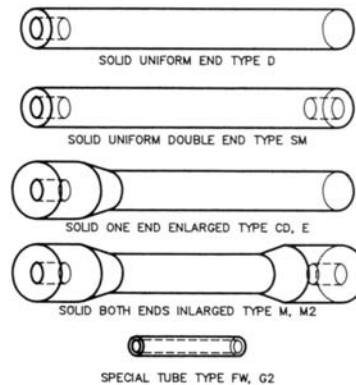
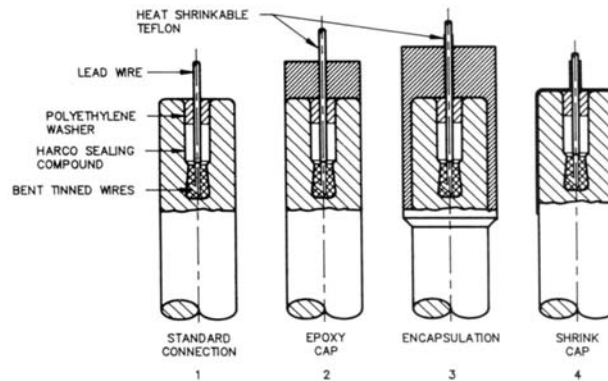
## Durichlor 51 Solid Rod Cast Iron Anodes

### Ordering Procedure

Corrpro solid cast iron anodes are available in numerous configurations and with several wire-sealing options. To order the required anode for your structure, indicate that you need a solid cast iron anode and specify the quantity desired, the anode type, connection sealant, wire length, size, and insulation, and whether the anode should be packaged or bare. An example is provided to help illustrate this process.

### Ordering Procedure Example

| ITEM                          | QUANTITY               |
|-------------------------------|------------------------|
| Quantity                      | 200                    |
| Anode Material                | Solid Rod<br>Cast Iron |
| Anode Type                    | D                      |
| Connection Sealant            | Epoxy<br>Encapsulated  |
| Wire Length                   | 20 ft.                 |
| Size (#8 = Standard)          | #8 AWG                 |
| Insulation (HMWPE = Standard) | HMWPE                  |
| Packaging: (Bare or Packaged) | Packaged               |



### Standard Dimensions and Shipping Weights

| ANODE TYPE | NOMINAL DIMENSIONS in. (mm) |                  | BARE WT.         |      | AREA              |                   |
|------------|-----------------------------|------------------|------------------|------|-------------------|-------------------|
|            | Ø                           | L                | lbs.             | (kg) | ft. <sup>2</sup>  | (m <sup>2</sup> ) |
| FW         | 1.13 (29)                   | 9 (229)          | 1 (0.5)          |      | 0.22 (0.02)       |                   |
| G2         | 2 (51)                      | 9 (229)          | 5 (2.3)          |      | 0.40 (0.04)       |                   |
| CD         | 1.5 (38)                    | 60 (1524)        | 25 (11.4)        |      | 2.0 (0.19)        |                   |
| <i>D</i>   | <i>2 (51)</i>               | <i>60 (1524)</i> | <i>44 (20.0)</i> |      | <i>2.6 (0.24)</i> |                   |
| M          | 2.25 (57)                   | 60 (1524)        | 63 (28.6)        |      | 2.8 (0.26)        |                   |
| M1         | 2.25 (57)                   | 60 (1524)        | 65 (29.5)        |      | 2.8 (0.26)        |                   |
| E          | 3 (76)                      | 60 (1524)        | 110 (49.9)       |      | 4 (0.37)          |                   |
| SM         | 4.5 (114)                   | 60 (1524)        | 220 (99.9)       |      | 5.5 (0.51)        |                   |



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