

# Silver / Silver Chloride AccuRef 60 & AccuRef 20 Permanent Reference Electrodes

## FEATURES & BENEFITS

- **Applications:** Direct burial in soil, with or without chloride ion contamination.
- **Electrode Potential:** In the range,  $240\text{mV} \pm 10\text{mV}$ , versus SHE @  $25^\circ\text{C}^{**}$
- **Filling Solution:** Saturated KCl plus additives \*\*
- **Low Freezing Point:**  $-20^\circ\text{C}$ .
- **Design Life:** 60 years (AccuRef 60), 20 years (AccuRef 20).
- **Purity:** High purity Ag, AgCl, KCl and triple de-ionized  $\text{H}_2\text{O}$ .
- **Tip:** Moisture absorbent ceramic tip.
- **Evaporation:** Will not dry out at low humidity and/or high heat.
- **Wire:** 25 ft of #12 AWG XLPE RHW-2 lead wire; cross-linked Polyethylene jacket, direct burial, low leakage, 600 V,  $90^\circ\text{C}$  Rating. Longer lengths of wire are available.
- **Electrical Contact Surface Area:** Approximately 16.4 square inches (a cylindrical surface, 1.5 inches in diameter and 3.5 inches in length).



Accuref 60  
Silver Chloride  
Cat. #14600

*\*\* AccuRef silver/silver chloride electrodes are not subject to contamination even in high chloride ion content soil due to the use of saturated KCl in the filling solution. The electrode potential is in the range  $240\text{mV} \pm 10\text{mV}$  versus SHE @  $25^\circ\text{C}$ , rather than around  $200\text{mV}$  versus SHE @  $25^\circ\text{C}$ , as a consequence of the additives included in the filling solution. The additives are responsible for the strongly-hygroscopic nature of the electrodes (they do not dry out even in very dry soil conditions and for the depressed freezing temperature ( $-20^\circ\text{C}$ )).*

### AccuRef 60 contains:

- 8g of high purity Ag (99.99% pure)
- 2g of high purity AgCl (99.99% pure)
- 500ml of KCl solution

### Dimensions:

- Diameter: 2.77in
- Length: 15in
- Weight: 3.9lbs

### AccuRef 20 contains:

- 3g of high purity Ag (99.99% pure)
- 0.75g of high purity AgCl (99.99% pure)
- 200ml of KCl solution

### Dimensions:

- Diameter: 2.77in
- Length: 11in
- Weight: 1.9lbs



Accuref 20  
Silver Chloride  
Cat. #14620

*All specifications are subject to change*



**INSTRUMENTS AND EQUIPMENT FOR THE CORROSION ENGINEER**

M.C. Miller Co. Inc. 11640 U.S. Highway 1 Sebastian, FL 32958  
Telephone: 772.794.9448 Fax: 772.589-9072 www.mcmiller.com