



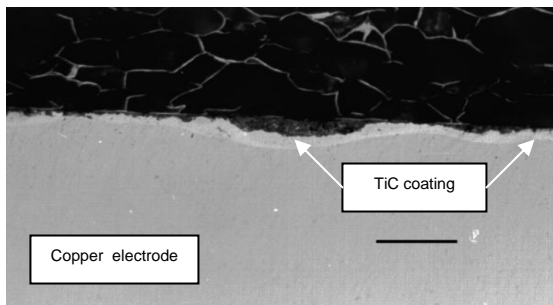
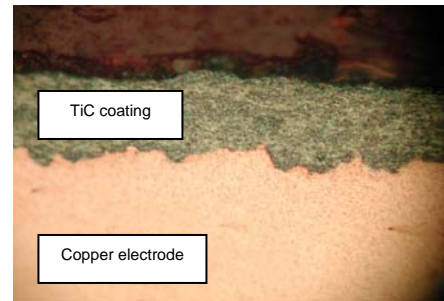
# SIDE DRESSABLE TICAPS™

Huys now offers titanium carbide (TiC) coated electrodes which can be dressed with automatic tip dressers that dress the sides of the electrodes only, leaving the weldface with TiC to maintain its excellent non-sticking and long life characteristics. This product is particularly useful in those situations where automatic tip dressers are employed.



The photographs above illustrate how only the weldface of the **Side Dressable TiCap™** is coated with titanium carbide (TiC), leaving the rest of the electrode uncovered to be machined by the tip dresser as the underlying copper “mushrooms” under the combined effects of heat and pressure during welding. All configurations can be coated, and most dresser blades can easily be altered to not cut the weldface. Not dressing the weldface further lengthens the life of the electrode, and is possible because of the ‘non-alloying’ and ‘anti-sticking’ nature of Huys’ patented coating.

Huys’ coating is welded on the copper and acts as an intermetallic barrier between the copper and the alloys being welded. The coating is seven times harder than the underlying copper and this, combined with the high melting temperature of titanium and the fact that titanium carbide is very stable and does not easily react with other metals, lengthens the life of the electrode while reducing “sticking” of the electrode. **In effect, the TiC protects the copper.**



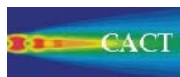
The scanning electron microscope photograph at left by the University of Waterloo of a TiCap™ electrode that has been used for 800 welds on galvanized steel clearly shows the degradation of the copper **underneath** the TiC coating. The TiC coating remains in place, reducing sticking and helping, as the University of Waterloo has said, **“to double the life of the electrode.”**

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Centre for Advanced Coating Technologies  
Centre pour l'Application de Couches

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