

# ACCU-LABS INC.

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**A2LA Accredited ISO/IEC 17025:2005 Certificate # 2558.01**

## **637 CLEAR TRIVALENT CHROMATE CONVERSION COATING FOR ALUMINUM**

**ACCU-LABS 637** conversion coating process is a RoHS compliant hexavalent chromium-free alternative for corrosion protection for most aluminum substrates. The **637** coating provides a stable, clear, slightly iridescent trivalent finish with excellent corrosion resistance. Parts treated with **637** conversion coating process have consistently achieved in excess of 168 hours of salt spray protection. The coating is amenable to subsequent organic coatings.

### **MAKE-UP and OPERATING GUIDELINES:**

<b>Concentration:</b>	10% by volume with water (DI water may be required for some applications where tap water quality compromises the integrity of the deposit; testing may be required for determination).
<b>Temperature:</b>	75-85°F (80°F optimum) higher temperatures (up to 120°F) may shorten dwell time but increased bath evaporation will occur.
<b>pH:</b>	2.8-3.6 (3.2 optimum)
<b>Dwell Time:</b>	2 minutes typical (your application may vary)
<b>Agitation:</b>	Mild pump or work
<b>Equipment:</b>	Mild steel lined with polypropylene or polyethylene
<b>Replenishment:</b>	Replenish with 637 liquid concentrate to maintain pH

**PROCESSING GUIDELINES:** Before parts can be processed with **637** they must first be pre-treated with a process that is suitable for the type of alloy being used. See the following pre-treatment guidelines:

### **For aluminum substrates with no etch required:**

- Soak cleaner.....**179 or ASB-60**
- Water Rinse
- Pickle (30% nitric acid in cold tap water with 2% hydrogen peroxide-35%)
- Water Rinse
- Trivalent Clear conversion coating.....**Accu-Labs 637**
- Water Rinse & Dry (<160°F)

**For aluminum substrates with traditional clean and etch:**

- Soak Clean.....Accu-Labs 366-G
- Water Rinse
- Etch.....Accu-Labs 368-G or 161
- Water Rinse
- Deoxidizer.....Accu-Labs DX-14 or 142
- Water Rinse
- Trivalent Clear conversion coating...Accu-Labs 637
- Water Rinse & Dry (<160°F)

**For aluminum alloys with high copper content Accu-Labs recommends:**

- Soak Cleaner.....Accu-Labs 366-G
- Water Rinse
- Etch.....Accu-Labs 216 Acid Salts w/42° Be´ Nitric Acid
- Water Rinse
- Deoxidizer.....Accu-Labs DX-14 or 142
- Water Rinse
- Trivalent Clear conversion coating.....Accu-Labs 637
- Water Rinse & Dry (<160°F)

The aforementioned information guidelines have been used by Accu-Labs and our business partners for developing practical operating procedures. Due to variables in every metal finishing operation (substrates, operators, equipment, tanks and etc.) each individual operation may have to perform some level of pre-treatment testing to determine the most effective procedure. Please contact your Accu-Labs Representative for assistance and Technical Literature regarding pre-treatment products.

**HANDLING & STORAGE:** Accu-Labs 637 is an acidic material. Eye protection and personal protective gear should be worn when handling or working with this material. Read MSDS prior to use. 637 should be stored at ambient temperature in accordance with MSDS recommendations. Disposal should be in accordance with all applicable regulations.

**DISCLAIMER:** *The information contained on this sheet is true and accurate to the best of our knowledge. Because use and conditions are beyond our control, no guarantee is expressed or implied for the above suggestions and/or recommendations. Accu-Labs, Inc. will not incur any liability in connection with the use of these suggestions and/or technical data.*

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