ACCU-LABS INC.

4831 S. Whipple Avenue
Chicago IL 60632
Phone: 773.523.3100 Fax: 773.523.4008
www.accu-labs.com

A2LA Accredited ISO/IEC 17025:2005 Certificate # 2558.01

628-CC NON-CHROMATE CONVERSION COATING FOR ALUMINUM

ACCU-LABS 628-CC conversion coating process is available as a chromium free alternative for corrosion protection for aluminum substrates. The **628-CC** coating provides a dark yellow to dark golden color with excellent corrosion resistance. Parts treated with **628-CC** conversion coating process have consistently achieved 168 hours of salt spray protection. The coating is abrasion resistant and lends itself to good paint adhesion.

MAKE-UP and OPERATING GUIDELINES:

Concentration:	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).
Temperature:	125-135°F (130°F optimum) higher temperatures may yield darker deposits but increased bath evaporation will occur.
pH:	9.5-10.5 (10.0 optimum)
Dwell Time:	3-5 minutes typical (your application may vary)
Agitation:	Mild pump agitation for filtration preferable
Equipment:	Mild steel or polypropylene
Replenishment:	Potassium permanganate level of the working solution should be maintained at 1.0 grams/liter (see analysis below) 628-CC is used to raise the potassium permanganate. The pH of the working solution will increase with additions of 628-CC; if the pH needs increased but the potassium permanganate level is acceptable then the pH can be raised with small amounts of liquid caustic soda.

Potassium permanganate analysis:

- Add 100 mls working solution to a 250 ml e-flask
- Add 25 mls sulfuric acid (25%)
- Add 10 ml potassium iodide (10%)
- Titrate with 0.1N sodium thiosulfate to a light brown color; add starch indicator and continue titrating to a blue-green endpoint
- Milliliters titrated x 0.0402 = grams/liter potassium permanganate

PROCESSING GUIDELINES:

Before parts can be processed with **628-CC** they must first be pre-treated with a process that is suitable for the type of alloy being used. Pre-treatment that involves alkaline silicated cleaners or aggressive caustic etching is typically **NOT** recommended. See the following pre-treatment guidelines:

For aluminum substrates with no etch required:

- Non-silicated acid cleaner……**Accu-Labs SR-10 or ASB-60**
- Water Rinse
- Deoxidizer (Optional)……..**Accu-Labs DX-14**
- Water Rinse
- Non-chrome conversion coating…..**Accu-Labs 628-CC**
- Water Rinse & Dry

For aluminum substrates that a "soft etch" would suffice Accu-Labs recommends:

- Cleaner/etch (single step)……..**Accu-Labs PC-16**
- Water Rinse
- Deoxidizer (Optional)……**Accu-Labs DX-14**
- Water Rinse
- Non-chrome conversion coating……**Accu-Labs 628-CC**
- Water Rinse & Dry

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

- Non-silicated acid cleaner……...**Accu-Labs SR-10**
- Water Rinse
- Micro-etch……**Accu-Labs 216 Acid Salts w/42° Be´ Nitric Acid**
- Water Rinse
- Deoxidizer……..**Accu-Labs DX-14**
- Water Rinse
- Non-chrome conversion coating…….....**Accu-Labs 628-CC**
- Water Rinse & Dry

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 **628-CC** is an alkaline material. Eye protection and personal protective gear should be worn when handling or working with this material. Read MSDS prior to use. **628-CC Concentrate** has a typical shelf life of **90 days** and should be stored at ambient temperature in accordance with MSDS recommendations.

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.***
RDM 020206