

# ACCU-LABS INC.

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

## **628-DM NON-CHROMATE CONVERSION COATING FOR ALUMINUM**

**ACCU-LABS 628-DM** conversion coating process is available as a chromium free dry compound alternative for corrosion protection for aluminum substrates. The **628-DM** may be kept in storage without loss of potency. Dissolved in water it becomes a mildly alkaline RoHS compliant treatment for aluminum. Parts treated with **628-DM** conversion coating process have consistently achieved in excess of 168 hours of salt spray protection. The coating is abrasion resistant and lends itself to good paint adhesion.

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

<b>Concentration:</b>	2 oz/gallon (15 g/l) in 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>	125-145°F (135°F optimum)
<b>pH:</b>	9.50-11.5 (maintain with additions of <b>628-DM</b> as a means of pH control; this will also maintain bath replenishment)
<b>Dwell Time:</b>	1-5 minutes typical (your application may vary)
<b>Agitation:</b>	Mild pump agitation preferable
<b>Equipment:</b>	Mild steel or polypropylene
<b>Analytical Control:</b>	

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-DM** 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:

- Soak Clean in **Accu-Labs 179** Mild Alkaline Cleaner 4-6% by volume, 125-135°F with a dwell time of 3 minutes.
- Water rinse thoroughly
- Deoxidize with **Accu-Labs 142** Deoxidizer or **DX-14** Deoxidizer 10-15% by volume, room temperature for 1-3 minutes.
- Water rinse
- **Accu-Labs 628-DM**
- Water rinse

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-DM** 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-DM** 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.*

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