



Technologies

Alodine® 1200 (Brush-on application)

Yellow chromating of aluminum in a brush-on process
- powdered, chromic acid containing product -

Fields of application:

Alodine® 1200 is a powdered chemical used to produce a protective coating on aluminum which ranges in color from light iridescent golden to tan. The process is operated at room temperature. The coating produced minimizes corrosion and provides an improved bond for paint.

Alodine® 1200 and other Alodine® coating chemicals are listed in the Qualified Product List QPL-81706 as approved materials for other Methods and Classes of Military Specification MIL-C-5541 B.

Process components:

Alodine® 1200
Nitric acid (62 %)

Coating bath make-up:

For the preparation of 10 l of the Alodine® 1200 coating solution add to 7 l water under stirring:

Alodine® 1200	0,25 kg
Nitric acid (62 %)	0.04 - 0.07 kg or 30 - 50 ml

After complete dissolution fill up with water to 10 l.

Operating conditions:

pH	1.3 - 1.7
Temperature	20 - 40 °C
Time	20 - 180 sec.

Process sequence:	Operation No. 1	Clean/Pickle
	Operation No. 2	Rinse
	Operation No. 3	Chromate with Alodine® 1200
	Operation No. 4	Rinse
	Operation No. 5	Dry

Clean/Pickle: Products of the Primalu® typ are used for cleaning/pickling. Check back with their data sheets.

Rinse: The clean surfaces are thoroughly rinsed with cold tap water.

Chromating: The wet surfaces are treated for 15 sec. to 3 min by brushing on the Alodine® 1200 solution with a acid proofed sponge or a soft brush. The surface must stay wet all the time. Too long treating time or a too high concentrated Alodine® 1200 solution will result in layers which are powdereous and can be wiped off. Too low temperatures of the solution and/or substrate inhibit the coat formation.

In case of having achieved powdereous coats these layers should be washed off with a soft sponge and much water. The remaining firmly sticking layer is suitable as a coat for subsequent painting.

Rinse: The chromated surface is thoroughly rinsed with cold tap water.

Drying: The PMT during the drying should be kept below 100 °C.

pH-Adjustment: A high pH can be readjusted by adding nitric acid and a low pH by adding caustic solution (5 %).

Required pH: 1.3 - 1.7

Remarks: The tank material containing Alodine® 1200 should be made out of rigid PVC (free of plasticisers) or austenic steel (type 1.4571).

Hooks and basket will have to be made out aluminum, rigid PVC (free of plasticisers) or austenic steel.

Spraying systems, pumps and heat exchangers have to be made out of stainless steel (type 1.4571).

Bathes of Alodine® 1200 as well as its rinsing bathes are not to be discharged into the public sewage system without prior detoxification and neutralization.

Caution:

Alodine® 1200 contains chromium trioxide, complex fluoro and cyanide compounds. Wear

- Eye goggles
- Rubber gloves
- Acid resistant wear
- Avoid contact with skin
- Provide air circulation

**Equipment and chemicals
for the analysis:**

pH-meter

The expiry date of the product is given on the packaging labels.

This information is based on our current level of knowledge. It is given in good faith but it is not intended to guarantee any particular properties. The users must satisfy themselves that there are no circumstances requiring additional information or precautions or the verification of details given herein.; This information is based on our current level of knowledge. It is given in good faith but it is not intended to guarantee any particular properties. The users must satisfy themselves that there are no circumstances requiring additional information or precautions or the verification of details given herein.; This information is based on our current level of knowledge. It is given in good faith but it is not intended to guarantee any particular properties. The users must satisfy themselves that there are no circumstances requiring additional information or precautions or the verification of details given herein.

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