BONDERITE

Technical Data Sheet

BONDERITE M-CR 1200 AERO

Known as Alodine 1200
February 2015

PRODUCT DESCRIPTION

BONDERITE M-CR 1200 AERO provides the following product characteristics:

Technology	Metal Pretreatment
Product Type	Conversion Coating
Application	Immersion process

A rapid process which forms a protective golden coloured conversion coating on aluminium and its alloys.

Application Areas:

BONDERITE M-CR 1200 AERO is a powdered chemical used to produce a protective coating on aluminum which ranges in colour 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.

BONDERITE M-CR 1200 AERO coating chemical, being listed on the Qualified Product List QPL for MIL-DTL-81706, is an approved material to be used by Method C (immersion processing) to produce Class 1A and 3 coatings, bare or unpainted, in accordance with Military Specification MIL-C-5541 B.

TECHNICAL DATA

(as supplied):

Appearance	brown powder
pH-value (of a solution at g/l)	1.2 to 1.8

DIRECTION OF USE

Preliminary Statement:
Prior to use it is necessary to read the **Material Safety Data Sheet** for information about precautionary measures and safety recommendations. Also, for chemical products exempt from compulsory labeling, the relevant precautions should always be observed. Please also refer to the local safety instructions and contact Henkel for analytical support.

Use instructions

Solution Make-up

For each 1,000 L of bath, add to the water with stirring or circulating by the pump add 7.5 to 15 kg BONDERITE M-CR 1200 AERO .

Points Cr(VI)	6.7 to 13.5
pH	1.8 to 2.1
Temperature, °C	21 to 38
Time, min.	1 to 5
Class 3 - Time, min.	0.25 to 3.0

Process sequence

Operation No. 1 - Clean
Operation No. 2 - Rinse
Operation No. 3 - Deoxidize
Operation No. 4 - Rinse
Operation No. 5 - Coat with BONDERITE M-CR 1200 AERO
Operation No. 6 - Rinse
Operation No. 7 - Rinse with deionized water
Operation No. 8 - Dry

The work, after processing and drying, is ready for use either painted or unpainted.

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Control Procedure for BONDERITE M-CR 1200 AERO

BONDERITE M-CR 1200 AERO Titration
1. Pipette 10 mL sample of the BONDERITE M-CR 1200 AERO coating chemical bath into a flask and dilute with 50 mL distilled water.

2. Add 20 mL of 25 % H2SO4 and 2 - 3 g KJ.

3. Titrate against 0.1 N sodium thiosulphate solution until the colour changes from brown to yellow.

4. Add several mL of soluble starch solution to the sample and continue the titration until the blue-black colour disappears.

5. Record the number of ml of 0.1 N sodium thiosulphate solution used as Cr(VI)-points.

Replenishment:
Add 1.1 kg of BONDERITE M-CR 1200 AERO per 1,000 L of bath for each Cr(VI)-point lacking. The bath should be kept within 6.7 and 13.5 Cr(VI)-points.

pH Control
A pH determination should be made each time the BONDERITE M-CR 1200 AERO coating chemical bath has been replenished.

The optimum pH lies between 1.8 and 2.1.

NOTE: The pH of the BONDERITE M-CR 1200 AERO is adjusted with diluted caustic solution and nitric acid, respectively.

Storage:

Temperature, °C	-10 to 40
Shelf-life (in unopened original packaging), months	24

Classification:
Please refer to the corresponding **Material Safety Data Sheets** for details on:
- **Hazards identification**
- **Transport information**
- **Regulatory information**

ADDITIONAL INFORMATION

Disclaimer

Note:
The information provided in this Technical Data Sheet (TDS) including the recommendations for use and application of the product are based on our knowledge and experience of the product as at the date of this TDS. The product can have a variety of different applications as well as differing application and working conditions in your environment that are beyond our control. Henkel is, therefore, not liable for the suitability of our product for the production processes and conditions in respect of which you use them, as well as the intended applications and results. We strongly recommend that you carry out your own prior trials to confirm such suitability of our product.
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