BONDERITE

Technical Data Sheet

BONDERITE M-ED 11001

Known as P3-Almecolor Seal SLT

August 2017

PRODUCT DESCRIPTION

BONDERITE M-ED 11001 provides the following product characteristics:

Technology	Metal Treatment
Product Type	Additive
Application	Hot Sealing Operations

BONDERITE M-ED 11001 is a slightly acid, liquid product formulated to prevent sealing smut in hot water sealing or during the ageing in an impregnation processes of anodized aluminium.
The product can be diluted in water at any ratio.
The buffering properties of the product regulate the pH value of the solution to about 5.8.
Despite the product feature, it is advisable to control the pH value at the bath make up.

DIRECTIONS FOR 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.

Application:
BONDERITE M-ED 11001 is used in aqueous solution with demineralized water at the following working conditions:

	Hot sealing	**Ageing of impregnation process**
Concentration	1 to 3 g/L	1 to 2 g/L
Time	3 min/µm	>1 min/µm
Temperature	>95°C	>65°C

Hard water can be used as long as the hardness value is kept below 20°F.
Make regular bath controls of the possible presence of ions incompatible with the sealing process.
In the case of a high ions content, increase the BONDERITE M-ED 11001 concentration and use a rinsing stage after the sealing to remove any salt residues due to excessive water hardness.

Maximum content limitations of some ions incompatible with seating are:

fluoride	5 mg/L
phosphate	5 mg/L
silicate	5 mg/L
sulphate	50 mg/L
chloride	100 mg/L
nitrate	100 mg/L
copper	1 mg/L
iron	1 mg/L
magnesium	5 mg/L
calcium	100 mg/L

Bath Make-up:

- Fill the tank with (possibly) deionised water and add 1 to 3 kg of BONDERITE M-ED 11001 for each 1,000 L of bath.
- Heat up to operating temperature under recirculation.
- After homogenisation, make the required controls.

Bath Control:
Periodically control the pH value of the bath cooled to 20°C.
Use a suitable pH-meter with electrode previously calibrated with buffer solutions at pH of 4 and 7.
Replenish the bath with little addictions of Acetic Acid or Ammonia.
Determination of BONDERITE M-ED 11001 content could not be possible due to a low concentration and/or high contamination.

Replenishment:
As an analysis of BONDERITE M-ED 11001 concentration can not be conducted, replenish the bath empirically whenever the bath performances decrease.
The bath life depends basically on the amount of contaminants dragged into the bath. In normal conditions the bath should be renewed each 3-4 weeks.

Particular Cautions:
BONDERITE M-ED 11001 is compatible with plant equipment normally employed. Slight differences in product appearance do not affect its efficiency or operating performances. Anodized pieces treated with BONDERITE M-ED 11001 meet all test and requirements of the following international regulations:

Henkel

ISO 2932 -	weight loss in acetic acid and sodium acetate solution
ISO 2931 -	measurement of admittance and impedance
ISO 3210 -	weight loss in phosphate-chromic solution (previously dipped in Nitric Acid)
ISO 2143 -	"dye spot test" (Scott Test)

Furthermore aluminium samples that have been anodised to 20 µm and fixed with BONDERITE M-ED 11001 meet the accelerated corrosion tests specifications:

ISO 9227 -	Salt-spray test (1500 hours of exposure)
ISO 9227 -	Salt-acetic spray test (600 h)

Storage:

Recommended storage temperature, °C	4 to 35
Shelf-life, months (in unopened original packaging)	36

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.
Any liability in respect of the information in the Technical Data Sheet or any other written or oral recommendation(s) regarding the concerned product is excluded, except if otherwise explicitly agreed and except in relation to death or personal injury caused by our negligence and any liability under any applicable mandatory product liability law.

In case products are delivered by Henkel Belgium NV, Henkel Electronic Materials NV, Henkel Nederland BV, Henkel Technologies France SAS and Henkel France SA please additionally note the following:
In case Henkel would be nevertheless held liable, on whatever legal ground, Henkel's liability will in no event exceed the amount of the concerned delivery.

In case products are delivered by Henkel Colombiana, S.A.S. the following disclaimer is applicable:
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. 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.
Any liability in respect of the information in the Technical Data Sheet or any other written or oral recommendation(s) regarding the concerned product is excluded, except if otherwise explicitly agreed and except in relation to death or personal injury caused by our negligence and any liability under any applicable mandatory product liability law.

In case products are delivered by Henkel Corporation, Resin Technology Group, Inc., or Henkel Canada Corporation, the following disclaimer is applicable:
The data contained herein are furnished for information only and are believed to be reliable. We cannot assume responsibility for the results obtained by others over whose methods we have no control. It is the user's responsibility to determine suitability for the user's purpose of any production methods mentioned herein and to adopt such precautions as may be advisable for the protection of property and of persons against any hazards that may be involved in the handling and use thereof. In light of the foregoing, **Henkel Corporation specifically disclaims all warranties expressed or implied, including warranties of merchantability or fitness for a particular purpose, arising from sale or use of Henkel Corporation's products. Henkel Corporation specifically disclaims any liability for consequential or incidental damages of any kind, including lost profits.** The discussion herein of various processes or compositions is not to be interpreted as representation that they are free from domination of patents owned by others or as a license under any Henkel Corporation patents that may cover such processes or compositions. We recommend that each prospective user test his proposed application before repetitive use, using this data as a guide. This product may be covered by one or more United States or foreign patents or patent applications.

Trademark usage: [Except as otherwise noted] All trademarks in this document are trademarks and/or registered trademarks of Henkel and its affiliates in the U.S. and elsewhere.

Reference 0.0

Henkel AG & Co. KGaA
40191 Düsseldorf, Germany
Phone: +49-211-797-0

Henkel Corporation USA
Madison Heights, MI 48071
Phone: +1-248-583-9300

Henkel (China) Co. Ltd.
201203 Shanghai, China
+86.21.2891.8000

This document was created and digitally signed by tdx.henkel.com at 2025-11-29T05:02:36.964Z