

Bonderite L-FG ADAG C-HA

July 2022

PRODUCT DESCRIPTION

Bonderite L-FG ADAG C-HA provides the following product characteristics:

| | |
|---------------------|------------------------------|
| Technology | Lubricant |
| Product Type | Graphite dispersion in water |
| Application | Multi purpose |

Bonderite L-FG ADAG C-HA is a unique dispersion of colloidal graphite in water, which combines a sub-micron particle size distribution with outstanding film forming properties on a wide variety of materials.

Very thin films of Bonderite L-FG ADAG C-HA will conform and adhere to the finest surface details and are readily formed on either hot or cold surfaces, thus taking fullest advantage of the versatile lubricating and anti-adherent properties of pure graphite.

In its undiluted form Bonderite L-FG ADAG C-HA is a stable colloidal gel containing a small quantity of protective ammonia.

In final diluted form it finds large scale application as a lubricant in metal forming operations.

Bonderite L-FG ADAG C-HA is the successor to BONDERITE L-GP AQUADAG 18% ACHESON retaining similar product characteristics. It is manufactured using the latest production methods to produce a graphite dispersion with extremely fine particle size.

Special Features:

- Waterborne product
- Very stable dispersion
- Air drying
- Very good impregnation properties
- Sub micron particles

TECHNICAL DATA

| | |
|-------------------------------------|----------------------------|
| Solid lubricant | high purity micro graphite |
| Solids content (120 °C, 1.5 hrs), % | ~18.0 |
| Ash content, % | ≤0.15 |
| Consistency | thixotropic fluid |
| Density, kg/m ³ | 1,095 |
| pH-Value | ~11 |
| Diluent | demineralised water |
| Particle size, µm: | |
| majority | ≤1 to 2 |
| maximum | 5 |

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.

Dilution:

Bonderite L-FG ADAG C-HA is a concentrate and it should normally be diluted before use with distilled soft or demineralized water.

Dilution should be carried out as follows:

1. Shake the product in its original container to break the thixotropic gel.
2. Pour the required quantity of Bonderite L-FG ADAG C-HA in a container of sufficient capacity.
3. Slowly add an approximately equal quantity of water with constant stirring, until the mixture is homogeneous.
4. Add water more rapidly, with constant stirring, until the required dilution ratio is obtained.

Warning:

Never keep diluted Bonderite L-FG ADAG C-HA in an unprotected iron container, as rust may cause the colloidal graphite to flocculate.

For Forging Application:

Remarks:

Diluted Bonderite L-FG ADAG C-HA may be applied by brushing, spraying or dipping. It is an advantage to pre-warm the surface to be coated in order to ensure rapid drying. Surfaces to be coated should be completely degreased. In some particular cases it may be advantageous to improve the wetting properties of diluted Bonderite L-FG ADAG C-HA by adding up to 0.5 % by weight of a wetting agent.

Treatment of dies for Hot Metal Working:

Pretreatment:

Bonderite L-FG ADAG C-HA, diluted with 10 parts of water is applied to the hot, degreased dies by brushing, spraying or dipping. The dry coating may be buffed with a felt buff or a cloth to obtain a highly burnished surface.

Lubrication in Service:

Bonderite L-FG ADAG C-HA is applied by spray, diluted with 1 up to 100 parts of water. The dilution ratio depends upon the die temperature and other factors.



For Special Electrical Application:**Remarks:**

Diluted Bonderite L-FG ADAG C-HA may be applied by brushing, spraying or dipping. It is an advantage to pre-warm the surface to be coated in order to ensure rapid drying. Surfaces to be coated should be completely degreased. In some particular cases it may be advantageous to improve the wetting properties of diluted Bonderite L-FG ADAG C-HA by adding up to 0.5 % by weight of a wetting agent.

Electrically Conducting Coatings:

The electrical characteristics of the dry coating can be varied by adjusting the ratio of concentrate to diluent, the method of application, thickness, and the type and degree of heat treatment. Resistance coatings have a negative temperature coefficient of resistance. The following figures are quoted as a guide:

Bonderite L-FG ADAG C-HA diluted 1 : 1 with water and applied by brush.

| | |
|-------------------|---------------------------------|
| Air dried coating | approx. 800 Ohm per square |
| Heated 200 °C | approx. 500 Ohm per square |
| Heated 300 °C | approx. 20 to 30 Ohm per square |

The resistance of an applied coating may be reduced up to one third by polishing.

The addition of a wetting agent, as indicated above, will also reduce the resistance of an Bonderite L-FG ADAG C-HA coating.

Classification:

Please refer to the corresponding **Material Safety Data Sheets** for details on:

Hazards identification
Transport information
Regulatory information

Storage:

| | |
|--|---------|
| Recommended Storage Temperature, °C | 5 to 40 |
| Shelf-life, months (in unopened original packaging) | 12 |

Bonderite L-FG ADAG C-HA should be stored in a cool place and should not be allowed to freeze.

Containers should be tightly re-sealed after use in order to prevent contamination and loss of ammonia.

ADDITIONAL INFORMATION**Disclaimer**

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, 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 of Henkel Corporation in the U.S. and elsewhere. ® denotes a trademark registered in the U.S. Patent and Trademark Office.

Reference 0.0

Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

[Loctite:](#)

[2174376](#)