

# Bonderite L-FG ADAG C-HA

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## PRODUCT DESCRIPTION

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

<b>Technology</b>	Lubricant
<b>Product Type</b>	Graphite dispersion in water
<b>Application</b>	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 <sup>3</sup>	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.

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