

## BONDERITE L-GP 156 ACHESON

Known as Dag 156  
November 2015

### PRODUCT DESCRIPTION

BONDERITE L-GP 156 ACHESON provides the following product characteristics:

<b>Technology</b>	Lubricant
<b>Product Type</b>	Graphite dispersion in solvent
<b>Application</b>	Dry film lubricant

BONDERITE L-GP 156 ACHESON is a graphite dry lubricant which satisfies the stringent requirements for lubricating the internal and auxiliary equipment mechanisms of commercial and naval nuclear reactor systems.

Extremely high purity graphite particles in thermoplastic resin and isopropanol produce a thin, dry, non corrosive film.

A BONDERITE L-GP 156 ACHESON film resists abrasion and effectively lubricates moving parts, rubbing surfaces, and threaded parts for easier assembly, trouble-free operation and non-destructive disassembly.

BONDERITE L-GP 156 ACHESON maintains a high level of chemical purity.

It provides non corrosive, dry, adherent lubrication for metal parts with limited clearances in applications where control of impurities is required.

### Special features

- High lubricity
- Thin, dry film
- Prevents, seizing, fretting, galling
- Easy application
- Fast air dry
- Excellent adhesion
- Does not migrate
- Unaffected by frost

### Application Areas

Nuclear reactors, commercial and naval.

### TECHNICAL DATA

#### (as supplied)

Lubricant	processed micro-graphite
Binder	thermoplastic resin
Solids content, %	~3.3
Flash Point (open cup), °C	11
Density, kg/m <sup>3</sup>	792
Color	black
Consistency	liquid
Diluent	isopropanol

#### Particle size/µm

Max. dimension of 90% of the particles	4
Max. dimension of any particle	10

Ash: weight percent, maximum on total solids	0.75
Fluorine: parts per million, maximum on total solids	20
Chlorine: parts per million, maximum on total solids	200
Sulphur: parts per million, maximum on total solids	200
Lead: parts per million, maximum on total solids	150

#### (as a cured coating)

Coefficient of friction (static)	0.15
Service temperature, °C	continuous: 200 °C; intermittent: 455 °C

#### Film properties:

Spalling	Film continuity shall not be broken, metal surface shall not be exposed.
Adherence	The coated surface shall be dry and shall not become exposed when subjected to light abrasion.
Appearance	Dry, non-oily
Odour	Characteristic of isopropanol. No odour of halogenated solvents shall be detected.

### 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.

#### Pretreatment

Substrates should be clean and dry before application. A solvent wipe and air dry is usually sufficient. For critical applications requiring maximum adhesion, mechanical or chemical pretreatment such as grit blasting, phosphating, anodising or etching is recommended.

#### Dilution

BONDERITE L-GP 156 ACHESON is supplied ready for use. If further dilution is required by the application, add Isopropanol while stirring thoroughly.

#### Application

Shake or agitate well before using. BONDERITE L-GP 156 ACHESON can be applied by spray, brush or dipping.

**Curing**

BONDERITE L-GP 156 ACHESON air dries in approx. 5 minutes, depending on temperature and humidity.

**Storage**

Recommended Storage Temperature, °C	5 to 30
Shelf-life, months (in unopened original packaging)	24

**Classification**

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

**Hazardous Information**  
**Transport Regulations**  
**Safety Regulations**

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

Reference 0.0