

BONDERITE L-FG 31 ACHESON

Known as Deltaforge 31
November 2014

PRODUCT DESCRIPTION

BONDERITE L-FG 31 ACHESON provides the following product characteristics:

Technology	Lubricant
Product Type	Graphite in water dispersion
Application	Forging die lubricant

BONDERITE L-FG 31 ACHESON is one of the world's most widely used forging die lubricants.

BONDERITE L-FG 31 ACHESON exhibits excellent stability with no separation or settling in the concentrate. This assures constant quality from top to bottom and results in consistent forging performance.

BONDERITE L-FG 31 ACHESON is a water-based graphite die lubricant and it is formulated to provide excellent lubricity and release when used on difficult press work and highly automated processes, including hot, warm, and precision forging.

BONDERITE L-FG 31 ACHESON contains a uniquely fine particle size graphite. Together with its special stabiliser and binder system this results in excellent lubricity and release, unsurpassed wetting properties, higher dilution ratios, and a longer die life.

Special features

- **Very broad application window**
- **Suitable for a wide range of job types and sizes**
- **Extremely fine graphite for unsurpassed film formation properties**
- **High die life**
- **Improved part quality**
- **Reduced downtime**

Application Areas

Die lubricant for hot and warm forging.

BONDERITE L-FG 31 ACHESON is suitable for the production of a very wide range of forgings including crankshafts, CV-joints and bevel gears as well as sinter forging of for example conrods.

It suitable for a wide range of alloys including Plain Carbon Steels, Superalloys, Aluminium and Brass.

BONDERITE L-FG 31 ACHESON is designed for spray application. It can be applied manually or automated, by means of reciprocators or robot based spray systems.

TECHNICAL DATA

Appearance	black medium viscous fluid
Pigment	high purity graphite
Carrier	water
Diluent	water
Density, kg/m ³	1,100
Solids content, %	18

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.

Dilution & Mixing

BONDERITE L-FG 31 ACHESON is supplied as a concentrate to be diluted before use, allowing flexibility and economy of use. It is diluted with water, with the ratio determined by the conditions of use. Before dilution the concentrate should be homogenized. For the best results use clean water, with a low mineral content and free from microbial infection. Hard water will effect the performance of the product. Dilute by adding water to the concentrate. It is advised to stir the diluted product continuously at a slow speed to prevent sedimentation and ensure a homogenous performance.

Dilution Ratio

- 3 to 20 parts of water to 1 part of product, depending on severity of the forging operation and alloy.

Storage

Store BONDERITE L-FG 31 ACHESON in a cool place, but do not allow it to freeze. Product should not be used once frozen.

Storage in direct sunlight may overheat BONDERITE L-FG 31 ACHESON and impair performance.

Always tightly reseal the container to prevent evaporation or contamination.

Shelf-Life

- 24 months from date of qualification under original seal.

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.

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