

# BONDERITE L-FG 144/S ACHESON

Known as Deltaforge 144/S  
April 2016**PRODUCT DESCRIPTION**

BONDERITE L-FG 144/S ACHESON provides the following product characteristics:

<b>Technology</b>	Lubricant
<b>Product Type</b>	Graphite in water dispersion
<b>Application</b>	Forging die lubricant

BONDERITE L-FG 144/S ACHESON is a water based speciality lubricant with superior lubricating and release properties.

BONDERITE L-FG 144/S ACHESON has been specially developed for hot and warm backward extrusion of steel on vertical presses.

The properties which are so beneficial in extrusion have proven their value in forging of steel, aluminium and copper alloys as well.

BONDERITE L-FG 144/S ACHESON is a delicate balance of special additives with high purity, synthetic graphite, processed to obtain optimum particle size and shape.

This results in the exceptional temperature stability, film forming properties, shear resistance and excellent release required for BONDERITE L-FG 144/S ACHESON.

**Application Areas:**

- Hot and warm backward extrusion of steel on vertical presses.
- Forging of steel, aluminium and copper alloys.

**Special Features:**

- High reliability due to wide application tolerance.
- Reduced downtime provided instructions for use are followed.
- Further reduced wear due to protection against high temperature corrosion of tool alloys and durability of the film.
- Improved quality of parts produced due to improved film forming.
- Reduced reject rates due to more even metal flow and ejection.
- Economic in use due to high covering power.
- Minimal health risk; BONDERITE L-FG 144/S ACHESON contains no oils.

**TECHNICAL DATA****(as supplied)**

Pigment	high purity graphite
Carrier	water
Diluent	water
Density, kg/m <sup>3</sup>	1,280
Solids content, %	~41

Viscosity, mPa.s (Brookfield 20°C, 20rpm)	2,000
pH-Value	~8.5

**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.

**Method of Use:**

BONDERITE L-FG 144/S ACHESON has been developed for application by automatic spray equipment like the Acheson Dag 2000. Hot and warm extrusion and deep cavity forging are the main application areas. For these applications, excessive cooling is usually undesirable. Therefore dilutions containing about 20 % BONDERITE L-FG 144/S ACHESON are common. The use of more diluted products is often possible but usually less economic over all. Short spray times are recommended. At tool temperatures below 120 °C moist films may be blasted off by excessive spray.

**Dilution:**

BONDERITE L-FG 144/S ACHESON is a concentrate to be diluted before use.

- Agitate the concentrate to make it pourable.
- Add the diluent to the concentrate under stirring.
- To avoid settling, the dilution should be stirred constantly, preferably with a large, low speed propeller.
- To avoid nozzle blocking, rinse the lines with water before every production break.

**Storage:**

BONDERITE L-FG 144/S ACHESON is not frost sensitive.

**Shelf Life**

- 24 months from date of qualification under original seal.

**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.

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