

BONDERITE S-FN 213 ACHESON

Known as Dag 213
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PRODUCT DESCRIPTION

BONDERITE S-FN 213 ACHESON provides the following product characteristics:

Technology	Lubricant
Product Type	Graphite dispersion in solvent
Application	Dry film lubricant

BONDERITE S-FN 213 ACHESON forms on a wide range of surfaces a dry, clean, wear resistant graphite coating, that can be used either as a running-in coating on oil lubricated parts, in particular pistons of diesel engines, or as a dry lubricating film.

BONDERITE S-FN 213 ACHESON coatings can be applied to any surface that is not adversely affected by the diluent or the curing cycle.

The coating exhibits extremely good wear resistance and resistance to oil and most solvents.

As a running-in coating BONDERITE S-FN 213 ACHESON will prevent metal-to-metal contact and so avoid damage during the critical running-in period.

As a dry film lubricant BONDERITE S-FN 213 ACHESON will provide maintenance-free service of light and medium loaded parts during long periods.

Special features:

- Excellent adhesion
- High lubricity
- Extremely good wear resistance
- Stable at high temperatures
- Clean, dry, thin film

Application Areas:

- Automotive pistons and cylinders
- Jet engine parts
- Business machine components
- Camera parts

TECHNICAL DATA

(of wet product)

Pigment	graphite
Binder	thermosetting resin
Solids content (110 °C, 3 hrs), %	~28.0
Viscosity, mPa.s (Brookfield 25 °C, 20 rpm)	~2,800
Flash Point, °C	7
Density, kg/m ³	980
Theoretical coverage	~20 m ² /kg at 10 µm dry coating thickness
Diluent	Methyl Ethyl Keton

(as cured)

Color	black
Static coefficient of friction	≤ 0.18
Service temperature	200 °C continuous, 210 °C intermittent. A fully run-in coating has a service temperature of 420 °C continuous and 540 °C intermittent.
Fuel and oil resistance	very good
Chemical resistance	good against alkalis and weak acids
Solvent resistance	very good against aliphatic and aromatic solvents

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.

Surface Preparation:

The components should be well degreased before coating. No further pretreatment is normally required. However, to obtain maximum performance, it is recommended that after cleaning either grit blasting or an appropriate chemical treatment, such as phosphating, anodising or acid etching be used.

Mixing and Dilution:

BONDERITE S-FN 213 ACHESON is supplied as a concentrate requiring dilution, the ratio being dependent upon the method of application.

For spray application, a ratio of about 2 parts by weight product to one of methyl ethyl ketone (MEK) is recommended.

For dipping use one part of product to one part diluent.

Prior to dilution, thoroughly stir the BONDERITE S-FN 213 ACHESON in its original container until it is perfectly homogeneous.

Note:

Information presented in this sheet is considered reliable, but conditions and methods of use, which are beyond our control, may modify results.

Before adopting our products for commercial use, the user should confirm their stability.

In no case should recommendations or suggestions for the use of our products be understood to sanction violation of any patent.

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Application:

The product may be sprayed using an externally atomising spray gun with a nozzle diameter of 0.8 to 1.5 mm, and an air pressure of 2 to 3 bar.

Electrostatic application is possible using equipment suitable for materials having a low electric resistance.

Curing:

To avoid outgassing of solvents during baking a 10 minutes flash-off time is necessary. Recommended cure cycle is 90 minutes at a substrate temperature of 180°C or 60 minutes at a substrate temperature of 200°C.

Storage:

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

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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