



Product Data Sheet

Dag® 156

Graphite dry lubricant for nuclear reactors

DESCRIPTION

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

Dag 156 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.

BENEFITS

Specific advantages offered by this product include:

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

TYPICAL APPLICATIONS

Nuclear reactors, commercial and naval.

TYPICAL PROPERTIES (as supplied)

Lubricant :	processed micro-graphite
Binder :	thermoplastic resin
Solids content :	3.3% ± 0.25%
Flashpoint :	11°C (open cup)
Density :	792 kg/m ³
Consistency :	liquid
Colour :	black
Diluent :	isopropanol
Shelf Life :	24 months from date of qualification under original seal

Particle size/µ.m

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

METHOD OF USE

Surface preparation

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

Dag 156 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.

Dag 156 can be applied by conventional spray, brush or dip methods.

Curing

Dag 156 air dries in approx. 5 minutes, depending on temperature and humidity.

**TYPICAL
PROPERTIES**

(as a cured coating)

Coefficient of friction

0.15 (static)

Service temperature

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.

HEALTH & SAFETY

Please consult Material Safety Data Sheet.

NOTES

Dag® is a registered trademark of Henkel AG & Co KGaA.

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