



By CRC Industries 

TECHNICAL DATA SHEET 1/3

GRAPHIT 33

GRAPHIT 33

Electrically conductive coating

1. GENERAL DESCRIPTION.

Thermoplastic binder with electrically conductive graphite powder.

2. FEATURES

GRAPHIT 33 contains a high level of pure and fine graphite powder. This results in a good electrical conductivity, as well as gliding and release agent properties of the graphite lacquer. The coating exhibits good adhesion on metal, many plastics, glass and wood.

3. APPLICATIONS

As a conductive coating for permanent and safe diverting of electrostatic discharges (ESD).

- Backs of cathode ray tubes
- Electroplating of non-conductive materials
- ESD safe packages
- Repair of graphite-coated pcb's in keyboard switches (e.g. remote controls)
- To firm the ESD protection of packaging and conveyor tube equipment.

As sliding coating for permanent, temperature resistant, dry sliding coating.

As high-temperature release agent : conductive protective release coating for high-voltage contacts, high-temperature release agent, e.g. for moulds used for the sintering of abrasive agents in abrasive discs.

Optical applications : the dark black colour makes GRAPHIT 33 suitable as an absorbent coating in for example laser applications.

4. DIRECTIONS

When relative small amounts are involved, the easiest way to apply GRAPHIT 33 is to spray from an aerosol can. Shake can thoroughly before use. Spray, from a distance of 20-30 cm onto the dry and degreased surface. After use, always clean button by spraying upside-down until only gas escapes.

When larger amounts are needed, GRAPHIT 33 can be applied by spraying using commercial spray guns. Before use, stir vigorously (best for 10 minutes with propeller agitator). During use, shake or stir at regular intervals.



CRC INDUSTRIES EUROPE BV
Touwslagerstraat 1 - 9240 Zele, Belgium
Tel. +32 (0)5245 6011 - Fax. +32 (0)5245 00 341
www.kontaktchemie.com

TECHNICAL DATA SHEET 2/3

GRAPHIT 33

The surface resistivity can be further reduced by heating at 90°C (1 hour) or by polishing with a cloth or swab. Polishing makes also the weak graphite layer more firm. At temperatures above 100°C the binding agent will decompose. Nevertheless a good adhering graphite film remains that can be used as e.g. release coating.

When GRAPHIT 33 is used in vacuum equipment, the lacquer must be heated on forehand. When using GRAPHIT 33 ensure that there is good ventilation. Remove all sources of ignition.

A safety data sheet (MSDS) according to EU directive 91/155/EEC and amendments is available for all CRC products.

5. TYPICAL PRODUCT DATA

Flashpoint

Aerosol	:	<0°C
Bulk	:	11°C

Coverage – calculated (20µm thickness)

Aerosol	:	± 0.3m ² /200 ml can
Bulk	:	±4m ² /l
Drying time at room temperature	:	tack-free <20 min. cured 4 hours

Dry film properties

Colour	:	black
Temperature resistance of lacquer	:	±90°C
Temperature resistance of graphite film	:	250 – 300°C
Surface resistivity	:	1000–2000 Ω
(depending on coating thickness, method of application and drying conditions)		

6. PACKAGING

Aerosol	:	200 ml
		400 ml
Canister	:	1 L
Barrel	:	15 L



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TECHNICAL DATA SHEET 3/3

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All statements in this publication are based on service experience and/or laboratory testing. Because of the wide variety of equipment and conditions and the unpredictable human factors involved, we recommend that our products be tested on-the-job prior to use. All information is given in good faith but without warranty neither expressed nor implied.

This Technical Data Sheet may already have been revised at this moment for reason such as legislation, availability of components and newly acquired experiences. The latest and only valid version of this Technical Data Sheet will be sent to you upon simple request or can be found on our website: www.crcind.com.

We recommend you to register on this website for this product so you will be able to receive any future updated version automatically.

Version : 4.1

Date: 6 November 2021



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