

Kondux™ G7512

Water based, Electrically Conductive Graphite Coating

Kondux™ G7512 is a multipurpose, single component coating based on conductive graphite in a water based thermoplastic coating. The dried coating provides low electrical resistance, flexibility, and very good chemical resistance including resistance to many solvents. The coating has a low VOC content and provides excellent adhesion to most surfaces including many metals, glass, composites, and many rigid plastics. It can be used for lithium ion batteries, current collectors in EDLCs, and musical instruments, and many other applications. Kondux™ G7512 requires low curing temperatures and can be applied by spray, brush, roller, and by flexo or gravure printing methods.

TYPICAL APPLICATIONS

- Lithium polymer Batteries
- Coating for screw threads
- Current collector in EDLCs
- Many other applications
- Musical instruments

HANDLING PROPERTIES

<u>Kondux™ G7512</u>	<u>VALUE</u>	<u>TEST METHOD</u>
Color	Black	Visual
Pigment	Graphite	
Binder	water based thermoplastic dispersion	
Viscosity, at 25°C	50 – 200 cps	ASTM D-2393
Density	1.09 -1.14 g/cm ³ (9.1-9.5 lbs./gal)	ASTM E-201
Solids Content	30% ± 1%	
Volatile Organic Content (VOC)	< 50 g/L	
Mix Ratio:	one component	

Recommended Cure Schedules: 24 hours at 25 °C and less than 50% relative humidity. (Please note that high humidity conditions may slow the drying process.) **or** the coating may be oven cured for 10 minutes at 70°C or 3 minutes at 90°C.

PHYSICAL PROPERTIES

	<u>VALUE</u>	<u>TEST METHOD</u>
Color	Black	
Sheet resistance	15 – 30 ohms/sq at 1 mil dry film thickness	
Solvent resistance, cured coating	very good.	

NOTE : Typical Properties determined using Kondux™ G7512 dried for 24 hours at 25°C and then post cured for 3 minutes at 90°C. Values are based on laboratory or average production results – not for specification purposes.

SUGGESTED PROCESSING GUIDELINES:

For best results and uniform conductivity, the Kondux™ G7512 should be homogenized on a paint shaker, a Jiffy mixer, or other prop style blade, or by thorough mixing with a spatula prior to use. Do not create a vortex or otherwise entrain air into the coating as this may produce a foam or lead to separation of the graphite from the coatings.

Apply using spraying equipment, a brush, a roller, or by printing methods. If necessary, you can thin the coating with distilled or deionized water at a rate of up to 1 oz water per 16 oz of the G7512 coating.

For best adhesion apply the coating to clean, dry surfaces. Etching or priming may be desired for some surfaces. Our Primax™ product line can provide increased adhesion to part-to-bond surface like aluminum and some plastics. For Please contact us for advice on surface preparation or primers if increased adhesion is required for your application.

STORAGE GUIDELINES:

Store this material in a clean, cool, and dry environment in its tightly closed original container. Products may settle or separate slightly during storage and should be thoroughly re-mixed as described above prior to use. Protect the coating from freezing and temperatures above 50°C (120°F). Tightly re-seal after each use. If the recommended storage conditions are observed the products will have a minimum shelf-life of 6 months from their date of shipment.

HANDLING PRECAUTIONS & PERSONAL HYGIENE:

Mandatory and recommended industrial hygiene procedures should be followed whenever these products are being handled and processed. For additional information please consult the corresponding material safety data sheets.

Kondux™ G7512

CAUTION Avoid contact with eyes, skin, or clothing. As with all industrial products, wear eye protection and impervious gloves when handling. Wash thoroughly after handling. Avoid breathing vapor or mist. Keep containers closed when not in use. Use only with adequate ventilation. Do not take internally.

FIRST AID

In case of contact:

Skin – Immediately wash skin thoroughly with mild soap and water. Remove contaminated clothing and wash before reuse. Destroy contaminated shoes and other articles made of leather.

Eyes – Immediately flush eyes with plenty of water for 15 minutes and get prompt medical attention.

Inhalation - Remove person to fresh air. Administer oxygen or artificial respiration if necessary. Call a physician.

Ingestion - Do not induce vomiting. Dilute with plenty of water and contact physician immediately. Never give anything by mouth to an unconscious person.

DISCLAIMER:

IMPORTANT: The following supersedes Buyer's documents. **SELLER / MANUFACTURER MAKES NO REPRESENTATION OR WARRANTY, EXPRESS OR IMPLIED, INCLUDING OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.** No

statements herein are to be construed as inducements to infringe any relevant patent. Under no circumstances shall Seller / Manufacturer be liable for incidental, consequential or indirect damages for alleged negligence, breach of warranty, strict liability, tort, or contract arising in connection with the product(s). Buyer's sole remedy and Seller's sole liability for any claims shall be Buyer's purchase price. Data and results presented are based on controlled or laboratory work and must be confirmed by Buyer by testing for its intended conditions of use. The product(s) has not been tested for, and is therefore not recommended for, uses for which prolonged contact with mucous membranes, abraded skin, or blood is intended; or for uses for which implantation within the human body is intended

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