Super Corona Dope
4226 Technical Data Sheet

4226-Liquid

Description

Our 4226 *Super Corona Dope* is a highly insulating coating with excellent arc and corona resistance. This low viscosity, one part varnish coating is easy to use and adheres well to many substrates.

Applications & Usages

The 4226 insulates transformers, coils, motor windings, and various electric generator parts against arc and corona. As well, it protects these parts from corrosion and moisture.

Benefits and Features

- **High dielectric strength**—4 100 V/mil (dry); 3 000 V/mil (wet)
- **Excellent moisture resistant**
- **Excellent finish**—tough, flexible, glossy, and durable transparent coat
- **Good adhesion**

Usage Parameters [a)]

Properties	*Value*
Tack Free	10 min
Recoat Time	4 h
Dry to Handle	20 min
Full Cure @22 °C [72 °F]	2 to 3 days
Full Cure @80 °C [176 °F]	1 h
Full Cure @110 °C [230 °F]	30 min
Shelf Life [b)]	5 y
Theoretical 1 L Coverage [c)]	<78 000 cm^2 [<84 ft^2]
Recommended Thickness	25 to 38 μm [1 to 1.5 mil]

a) Cure times assume a thickness of 1 mil and standard conditions.
b) After date of shipment
c) Idealized estimate based on dip coat method and 90% transfer efficiency

Temperature Ranges

Properties	*Value*
Constant Service Temperature	-40 to 180 °C [-40 to 356 °F]
Storage Temperature [d)]	25 °C [104 °F]

d) The product should not be exposed to direct sunlight.

Chemical Components

Name	***CAS Number***
Modified Alkyd Resin	*proprietary*
Xylene	*1330-20-7*
Ethyl benzene	*100-41-4*
Toluene	*108-88-3*
Cumene	*98-82-8*

Rev. Date: 24 November 2016 / Ver. 1.02

Properties of Cured 4226

Physical Properties	*Method*	*Value*
Color	Visual	Clear
Moisture Resistance		Excellent
Oil Resistance	ASTM	Fair
Electric Properties	***Method***	***Value***
Dielectric Strength @2 mil (dry) [a)]	ASTM D149	4100 V/mil
@2 mil (wet) [b)]	ASTM D149	3000 V/mil
Insulation Class [c)]		130(B) 150(F) 180(H)

a) After conditioning in air at 25 °C for 24 h; coat thickness 50 μm
b) After conditioning in water at 25 °C for 24 h; coat thickness 50 μm
c) Meets UL EIS standards

Properties of Uncured 4226

Physical Properties	*Method*	*Value*
Viscosity @25 °C [77 °F]	ASTM D2196	105 cP [0.105 Pa·s]
Solids Content (w/w)		35% ±1%
Density		0.926 ±0.010 g/mL
Flash Point	ASTM D93	27 °C [81 °F]
Odor	—	aromatic

a) Brookfield viscometer with spindle LV1

Compatibility

Adhesion—The 4226 insulation coating adheres well to copper and steel; however, it is not compatible with contaminants like water, oil, and greasy flux residues that may affect adhesion. If contamination is present on the substrate, clean the surface first.

4226 Adherence Compatibility

Substrate	Note
Copper	Excellent
Steel	Excellent

Health, Safety, and Environmental Awareness

Please see the 4226-Liquid **Safety Data Sheet** (SDS) for more details on transportation, storage, handling and other security guidelines.

Environmental Impact: The 4226 formulation has a volatile organic content of 65% [604 g/L]. The coating is RoHS compliant.

Health and Safety: The liquid is flammable and should be kept away from flames and other ignition sources. As with most paint materials, avoid breathing in fumes or direct contact with the material. Solvents therein can cause irritation and other symptoms like headaches, pain, as well as having long term exposure effects.

Use in the open air, in fume hoods, or in well ventilated area. For short or long term (8 hours) at levels of exposures exceeding 100 ppm of xylene or ethyl benzene, use NIOSH approved respirator with organic vapor cartridges rated for this order of concentrations.

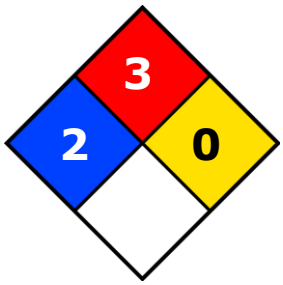
Wear safety glasses or goggles and disposable gloves to avoid exposures. Wash hands thoroughly after use.

The cured coating presents no known hazard.

HMIS® RATING

HEALTH:	* 2
FLAMMABILITY:	3
PHYSICAL HAZARD:	0
PERSONAL PROTECTION:	

NFPA® 704 CODES



Approximate HMIS and NFPA Risk Ratings Legend:
0 (Low or none); 1 (Slight); 2 (Moderate); 3 (Serious); 4 (Severe)

Application Instructions

The 4226 can be easily applied by dip or spray gun. Follow the procedure below for best results. The product may be diluted with xylene or other similar low cost solvents.

Prerequisites

- Ensure that the substrate if free of scratches, gouges, and raised metal burrs
- Ensure surface to be coated is clean: oil free, dust free, and rust free

To coat by dipping method

1. Hang PCB on a dipping arm
2. Lower board in dip tank
3. Immerse at least 12” below the top to minimize entrapments
4. Let dwell for 2 minutes to allow for penetration
5. Withdraw slowly at about 10 cm/min [5 in/min]
6. Let air dry 4 h before recoat to avoid solvent entrapment
7. Repeat steps 1 to 6 if higher thickness required

NOTE: Dipping in undiluted 4226 typically yields 1 to 1.5 mil dry film thickness per coat.

To coat by spray gun method

1. Mix thoroughly, and spray a test pattern.
   This step ensures good flow quality and helps establish appropriate distance to avoid runs.
2. At a distance of 20 to 25 cm (8 to 10 inches), spray a thin and even coat onto the part. For best results, use spray-and-release strokes with an even motion to avoid excess paint in one spot.
3. If additional coats are required, rotate the part 90° to ensure good coverage.
4. Wait at least 4 hours at room temperature before recoat. The delay avoids trapping solvent between coats.
5. Apply additional coats until desired thickness are achieved. (Go to Step 1)

NOTE: Dilution with a thinner may be required.

ATTENTION: Using excessive coat thickness can cause defects. Do not heat cure between coats because this causes wrinkling.

To air dry the electric insulation coating

- Let air dry 72 hours

While this product can be air dried, it is highly recommended that you heat cure the product for optimal dielectric properties.

To heat cure

- Wait 1 h or more at room temperature for the coating to dry
- Put in an oven 110 °C [230 °F] for 30 min.
  OR
- Put in an oven at 80 °C [176 °F] for 60 min.

Packaging and Supporting Products

Cat. No.	*Packaging*	*Net Volume*		*Net Weight*		*Packaging Weight*	
4226-55ML	Bottle	55 mL	1.86 fl oz	50.9 g	1.79 oz	0.3 kg [a)]	0.6 lb [a)]
4226-1L	Can	945 mL	1.99 pt	875 g	1.92 lb	1.1 kg	2.4 lb
4226-4L	Can	3.78 L	1 gal	3.5 kg	7.71 lb	3.8 kg	8.4 lb

a) Case pack of 5

Technical Support

Contact us regarding any questions, improvement suggestions, or problems with this product. Application notes, instructions, and FAQs are located at www.mgchemicals.com.

Email: support@mgchemicals.com

Phone: +(1) 800-340-0772 (Canada, Mexico & USA)
+(1) 905-331-1396 (International)
Fax: +(1) 905-331-2862 or +(1) 800-340-0773

Mailing address:

Manufacturing & Support
1210 Corporate Drive
Burlington, Ontario, Canada
L7L 5R6

Head Office
9347–193rd Street
Surrey, British Columbia, Canada
V4N 4E7

Warranty

M.G. Chemicals Ltd. warranties this product for 12 months from the date of purchase by the end user. *M.G. Chemicals Ltd.* makes no claims as to shelf life of this product for the warranty. The liability of *M.G. Chemicals Ltd.* whether based on its warranty, contracts, or otherwise shall in no case include incidental or consequential damage.

Disclaimer

This information is believed to be accurate. It is intended for professional end users having the skills to evaluate and use the data properly. *M.G. Chemicals Ltd.* does not guarantee the accuracy of the data and assumes no liability in connection with damages incurred while using it.

X-ON Electronics

Largest Supplier of Electrical and Electronic Components

Click to view similar products for Chemicals ***category:***

Click to view products by MG Chemicals ***manufacturer:***

Other Similar products are found below :

DP-605NS 3045-QT 3125-9S 5200-WHITE-3OZ 3748-Q-58"x8" FO-25DT Polygun-LT S1009-KIT-A-CS8606 DP100-200ML 1743-2FP 152-KA-NC VERSIL406 826-450G 3789-Q 9729 9223 9945 7000000275 1601 8330-19G 842AR-15ML 841AR-150ML 842AR-P 843WB-15ML 8462-85ML 4354-1L 838AR-P 838AR-15ML 419D-P-BK 419D-P-GR 419D-P-WH 8MT-450 8MT-25 832HD-25ML 8616-25ML 832FX-450ML 834ATH-375ML 832HD-400ML 8617-1P 843AR-340G 9310-300ML 847-1P 4228-225ML 419D-55ML 8800-375ML 8810-375ML 8820-2.55L 419E-340G 842UR-12ML 419D-1L