CREATIVEMATERIALS

www.creativematerials.com

ISO 9001 CERTIFIED
ISO 14001 CERTIFIED

Creative Materials, Inc.
12 Willow Road
Ayer, MA 01432

T 978.391.4700
F 978.391.4705

127-24FB

EXTREMELY FLEXIBLE SCREEN-PRINTABLE SOLVENT RESISTANT UV-CURABLE COATING

DESCRIPTION: 127-24FB is a blue, matte finish, screen-printable, solvent-resistant, extremely flexible, ultraviolet curable dielectric coating that is used as a protective, insulating layer over, or between, polymer thick film conductive inks in the manufacture of membrane switches and flex circuits. This coating can be used on a variety of substrates such as polycarbonate, treated and untreated polyesters, Kapton, epoxy/glass PC boards, glass and Indium Tin Oxide sputtered surfaces. A void-free coating is obtained that has good resistance to humidity, temperature and solvents. 127-24FB is designed for use in crossover applications with various CMI conductive inks, including 118-09A/B, 118-41, 114-01,112-15, 125-15, 125-13 and 112-48 just to name a few. Please consult Creative Materials' technical support when considering using 127-24FB with other Creative Materials' conductive inks or adhesives. 127-24FB is a blue version of 127-24 an even greater degree of flexibility.

BENEFITS

* Low odor
* Excellent Flow Properties
* Fast Cure
* Zero VOC's (when fully cured)
* Excellent Printability

PROPERTIES:

Viscosity (cps)	60,000
Color	Matte, Blue
Dielectric Strength (volts/mil)	365
Volume Resistivity (ohm-cm)	7.1×10^{15}
Dielectric Constant (1 kHz)	4.3
Dielectric Factor (60 Hz)	0.018
Solids Content (%)	100
Specific Gravity (g/cc)	1.31
Screen Types	Polyester or Stainless Steel
Screen Mesh*	200 – 400 Stainless Steel 170 – 270 Polyester
Useful Temperature Range (˚C)	-55 to +250
Coverage @ 1 mil dry ($in^2/g.$)**	46

* Screen mesh used will vary depending on end-user application and equipment. Two dielectric applications are highly recommended for crossovers.

** Coverage will vary depending on screen mesh, process and material.

SUGGESTED HANDLING & CURING: Material is ready to use as received. Cure using a 200-300 watt/inch mercury vapor lamp. Speed of cure will vary depending upon available energy. Typical cure time ranges from a few seconds to 1minute when work is positioned 6-10 inches from lamp. Faster curing can be accomplished by moving lamp closer to work or increasing lamp intensity. When applying two layers, it is sometimes desirable to under-cure the first layer so as to improve interlayer adhesion.

STORAGE: Shelf Life: 6 months at 25°C. Some filler may settle during storage. Mix well prior to using to re-suspend filler.

SAFETY and HANDLING: Use with adequate ventilation. Keep away from sparks and open flames. Avoid prolonged contact with skin and breathing of vapors. Wash with soap and water to remove from skin.

All technical information is based on data obtained by CMI personnel and is believed to be reliable. No warranty is either expressed or implied with respect to results or possible infringements on patents.

REVISION DATE: 08/29/22 REVISION: C

CREATIVEMATERIALS

www.creativematerials.com

ISO 9001 CERTIFIED
ISO 14001 CERTIFIED

Creative Materials, Inc.
12 Willow Road
Ayer, MA 01432

T 978.391.4700
F 978.391.4705

TOXIKON
RIGHT. FROM THE START.℠

TEST RESULT CERTIFICATE

Sponsor	Creative Materials, Inc	**Technical Initiation**	10/27/2021
Address	12 Willow Rd. Ayer MA 01432	**Technical Completion**	10/30/2021
Contact	Jonathan Knotts	**Report Date**	12/13/2021
P.O. Number	00796207	**Final Non-GLP Report**	21-03538-N1

Test Article	Printed electrode array with 112-15A , 113-09, and 127-24FB on polyethylene terephthalate film.
Lot/Batch #	663180
Study	Primary Skin Irritation Test – Direct
Comments	Physical State: Solid Color: Blue and Silver Sterility: Not Sterile Storage condition: Room Temperature Intended Use: Research and development - device

REFERENCES: The study was conducted based upon the following references: ISO 10993-10, 2010, Biological Evaluation of Medical Devices - Part 10: Tests for Irritation and Skin Sensitization. ISO 10993-12, 2021, Biological Evaluation of Medical Devices - Part 12: Sample Preparation and Reference Materials. ISO 10993-23, 2021, Biological Evaluation of Medical Devices - Part 23: Tests for Irritation.

ISO/IEC 17025, 2017, General Requirements for the Competence of Testing and Calibration Laboratories.

GENERAL PROCEDURE: The skin of three albino rabbits was prepared for testing. Two application sites for both test article and control were prepared by clipping the skin of the trunk free of hair within 24 hours before application of the test article. The sites of application were not abraded deliberately or accidentally during preparation. Areas of untreated skin served as the control sites. The animals were treated by introducing the test article (2.5 × 2.5 cm) under gauze patches. The test article was kept in contact with the skin for 4 hours by wrapping with an impervious bandaging. At the end of the exposure period, the wrapping and test article were removed. The animals were observed for signs of erythema and edema at 60 minutes, and then at 24, 48, and 72 hours after bandage removal. Observations were scored according to the Classification System for Scoring Skin Reactions. Observation values were calculated by averaging the scores for each individual animal. This was performed by adding the scores for each animal for erythema and edema at 24, 48, and 72 hours. This total was divided by 6 (2 test sites times 3 observation periods). A similar assessment was made of the control sites. The control score was subtracted from the test article score. Then, this calculated value for each animal was added together for a total of three animals. The total was divided by 3 to obtain the Primary Irritation Index. A test article with a Primary Irritation Index of less than 0.5 is considered a negligible irritant. Test article with indices of 0.5 to less than 2.0 are slight irritants. Test articles with indices of 2.0 to less than 5.0 are moderate irritants. Any test articles with an index of 5.0 or more are considered severe irritants. Dermal irritants are those test articles that produce reversible changes in the derma. Those test articles that destroy the structure of the intact skin or change it irreversibly are considered corrosive.

RESULTS: All animals gained in body weight. No signs of erythema or edema were present at the 60 minute, 24, 48, or the 72 hour observation points. None of the control sites of any animal at any of the observation periods showed signs of erythema or edema.

CONCLUSION: The test article was tested for its potential to produce primary dermal irritation after a single topical 4 hour application to the skin of albino rabbits. The Primary Irritation Index was 0.0. The test article was considered a negligible irritant.

AUTHORIZED PERSONNEL:

Alex Howlett, B.S.
Quality Assurance

Shirley Lister, B.S., LATG
Study Director