



DUPONT™ PE971

STRETCHABLE SILVER/SILVER CHLORIDE CONDUCTOR

PRODUCT DESCRIPTION

DuPont™ PE971 is a stretchable Ag/AgCl conductor paste for printed low-voltage circuitry on elastic film and textile substrates. It is compatible with polyurethane (TPU) film and select synthetic fabrics.

PRODUCT BENEFITS

- Stretchable Ag/AgCl conductor
- Compatible with wide variety of fabric and film substrates
- Compatible with lamination
- Dry contact Bio-potential electrode

PROCESSING

Screen Printing Equipment

- Automatic reel-to-reel
- Semi-automatic flat-bed
- Rotary screen/cylinder screen

Substrates

- Select synthetic fabrics
- Coated fabrics & membranes
- Thermoplastic polyurethane films

Screens

- 325 – 200 Wire/inch stainless steel mesh
- 120 – 77 Thread/cm polyester mesh

Curing

Dry at 110 – 140°C for 2 – 10 minutes in a well-ventilated oven or conveyor dryer, where the exhaust meets environmental regulations. Drying efficiency and good print quality/thickness control help ensure best electrical and physical performance.

Table 1-Typical Composition Properties

Test	Properties
Solids (%) @ 150°C	71.0-75.0
Viscosity (PaS) [Brookfield 0.5 x RVT, #14 Spindle, 10 RPM, 25°C]	15-40
Density (g/cc)	2.8
Ag:Ag/Cl ratio	80/20
Thinner	DuPont™ 3610
Shelf Life (months)	6

Table 2-Typical Physical Properties

Test	Properties
Cross Hatch Adhesion (B) ASTM standard?	4-5
Resistivity	100 mohm/sq/mil
Coverage(cm ² /g)	~200

STORAGE AND SHELF LIFE

Containers should be stored, tightly sealed, in a clean, stable environment at room temperature (<25°C). Shelf life of material in unopened containers is six months from date of shipment. Some settling of solids may occur and compositions should be thoroughly mixed prior to use.

SUBSTRATE TYPES

PE971 is appropriate for many types of thermally-stable substrates in wearable electronics applications. Due to the diverse nature of potential fabrics and films that could be considered, it is not always possible to provide detailed performance guidance. For more information, please call your local DuPont representative.

SAFETY AND HANDLING

Please inform the DuPont product supplier if you intend to test PE971 alone or in combination with other materials, on human skin. For Safety and Handling information pertaining to this product, read the Material Safety Data Sheet (MSDS).



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FOR MORE INFORMATION ON DUPONT™ PE971 OR OTHER DUPONT MICROCIRCUIT MATERIALS PRODUCTS, PLEASE CONTACT YOUR LOCAL REPRESENTATIVE:

Americas

DuPont Microcircuit Materials
14 TW Alexander Drive
Research Triangle Park, NC 27709
USA
Tel +1 800 284 3382 (calls within USA)
Tel +1 919 248 5188 (calls outside USA)

Europe, Middle East & Africa

Du Pont (UK) Ltd
Coldharbour Lane
Bristol BS16 1QD
UK
Tel +44 117 931 3191

Asia

Du Pont Kubushiki Kaisha
MCM Technical Lab
DuPont Electronics Center
KSP R&D B213, 2-1,
Sakado 3-chome, Takatsu-ku,
Kawasaki-shi, Kanagawa, 213-0012
Japan
Tel +81 44 820 7575

DuPont Taiwan Ltd
45, Hsing-Pont Road
Taoyuan, 330
Taiwan
Tel +886 3 377 3616

DuPont China Holding Company Ltd
Bldg. 11, 399 Keyuan Road
Zhangjiang Hi-Tech Park
Pudong New District
Shanghai 201203
Tel +86 21 3862 2888

DuPont Korea Inc.
3-5th Floor, Asia tower #726
Yeoksam-dong, Gangnam-gu
Seoul 135-719, Korea
Tel +82 2 2222 5275

E.I. DuPont India Private Limited
7th Floor, Tower C, DLF Cyber Greens
Sector-25A, DLF City, Phase-III
Gurgaon 122 002 Haryana, India
Tel +91 124 409 1818

Du Pont Company (Singapore) Pte Ltd
1 HarbourFront Place, #11-01
HarbourFront Tower One
Singapore 098633
Tel +65 6586 3022

mcm.dupont.com

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CAUTION: Do not use in medical applications involving permanent implantation in the human body. For other medical applications, see "DuPont Medical Caution Statement," H-50102-5.

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