

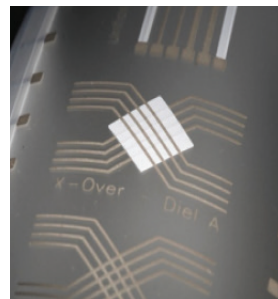
# IN MOLD ELECTRONICS

## PRODUCT SELECTOR GUIDE

### OVERVIEW

In Mold Electronic ink technology is designed to survive the intense stretch and heat of the thermoforming and injection molding processes. The inks can be used to construct HMI control surfaces with 3D circuits that feature capacitive switches and LED lighting for applications such as touch-panel control interfaces in automobiles and domestic appliances. By removing bulky physical switches and part assembly process steps, significant cost and weight savings can be achieved. Below is an overview of the comprehensive suite of compatible inks within the IME portfolio designed to be used with polycarbonate formable films and resins.

Type	Product	Rs (mΩ/sq/25μm)	Product Description	Use	Compatible with
Conductor	ME101	–	Highest conductivity Ag-based conductor. Limited formability.	Optimized for RFID and NFC antenna.	IME suite
	ME602	~ 45	Formable Ag-based conductor.	Interconnect; capacitive touch.	IME suite; Polycarbonate; In-mold decorative inks
	ME603	~ 35	Formable Ag-based conductor optimized for elongation and deep forming. Reduced show-through or ghosting on A-side.	Interconnect and capacitive touch.	IME suite; Polycarbonate; In-mold decorative inks
Carbon-based Overprint	ME201	< 100 Ω/sq/25μm	Improves reliability of mechanically attached connector areas and inhibits silver migration.	Interconnect, connectors.	IME suite
Encapsulant	ME772	–	Formable over-print protection. Thermal cure.	Clear, protective layer for circuitry.	IME suite
	ME780	–	Circuit protection layer used as graphic ink tie coat and over-print protection.	Clear, protective layer for circuitry.	IME suite
Crossover Dielectric	ME778	–	Formable thermoplastic crossover dielectric with optimized insulation properties.	Capacitive switch.	IME suite
	ME779	–	Formable partial-thermoset crossover dielectric with optimized insulation properties.	Capacitive switch.	IME suite
Transparent Conductor	ME801	< 500 Ω/sq	Formable conductor for transparent touch-sensitive areas. Light transmission >90%.	For touch-sensitive areas, LED backlighting.	IME suite
Electrically Conductive Adhesive	ME902	100 - 150	Ag-based conductive adhesive optimized to reduce stress on devices and connectors bonded to IME circuits while maintaining adhesion and connection reliability.	Connectors; chip bonding; LED attach.	IME suite





## IN MOLD ELECTRONICS PRODUCT SELECTOR GUIDE

**FOR MORE INFORMATION ON DUPONT™ IN MOLD ELECTRONICS OR OTHER DUPONT ADVANCED MATERIALS, PLEASE CONTACT YOUR LOCAL REPRESENTATIVE:**

### Americas

DuPont Photovoltaics & Advanced Materials  
Chestnut Run Plaza, B708  
974 Centre Rd, Wilmington, DE 19805  
U.S.A  
Tel. +1919 248 5188

### Europe, Middle East & Africa

Bristol & Bath Science Park  
Dirac Crescent, Emersons Green  
Bristol, BS16 7FR  
U.K.  
Tel. +44 117 9709667

### Asia

DuPont Electronic Materials K.K.  
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 Co. Ltd  
B11, 399 Keyuan Road  
Zhangjiang Hi-Tech Park  
Pudong New District,  
Shanghai 201203  
China  
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 4091818

DuPont Company (Singapore) Pte Ltd  
21 Biopolis Road  
#06-21 Nucleos South Tower  
Singapore 138567  
Tel. +65 6586 3022

[advancedmaterials.dupont.com](http://advancedmaterials.dupont.com)

Copyright © 2018 DuPont. All rights reserved. The DuPont Oval Logo, DuPont™, and all DuPont products denoted with ® or ™ are registered trademarks or trademarks of E. I. du Pont de Nemours and Company or its affiliates.

This information corresponds to our current knowledge on the subject. It is offered solely to provide possible suggestions for your own experimentations. It is not intended, however, to substitute for any testing you may need to conduct to determine for yourself the suitability of our products for your particular purposes. This information may be subject to revision as new knowledge and experience becomes available. Since we cannot anticipate all variations in end-use conditions, DuPont makes no warranties, and assumes no liability in connection with any use of this information. Nothing in this publication is to be considered as a license to operate under or a recommendation to infringe any patent right.

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. K-28956 (9/18)