

# DuPont Portfolio of Robust Solutions Enable Safe and Reliable Electric Insulation System Components



### High-quality insulation materials are crucial

Most people do not realize the variety of components and materials used in everyday electronics and electrical systems. Any device, appliance, machine, or electrical system we power on has intricate components like switches, relays, solenoids, motors, or transformers. DuPont understands that the materials used to make these components are crucial for safety and reliability.

Electrical insulation materials (EIMs) can help reduce the risk of electrical failure and fire hazards. Customers depend on DuPont for versatile and reliable materials to help ensure that the devices and systems that power our homes, workplaces, and cities are reliable and safe.



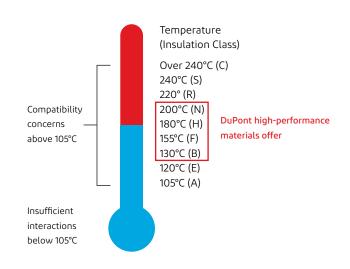


#### DuPont EIS deliver value to customers

An Electrical Insulation System (EIS) is comprised of a unique combination of materials that have been verified for chemical compatibility when used at certain maximum temperatures. These combinations are arranged to form insulation systems such as those used in motors, transformers, solenoids, relays, and switches.

DuPont has developed more than 400 pre-approved Electrical Insulation Systems that our customers can use to enable faster product launch with lower cost through reduced application testing scope.

DuPont's portfolio includes some of the most trusted brands and well-known products on the market. Crastin® PBT resins, Rynite® PET resins, Zytel® HTN polyamides, and Zytel® nylon resins have helped set the industry standard for superior chemical compatibility and ability to withstand high temperatures for a variety of EIS components.



## DuPont key solutions for demanding environments

With a broad portfolio of robust thermoplastic electrical insulation materials, DuPont partners with manufacturers to create EIS components—like motor solenoids, transformers, relays and more—that deliver reliable performance in even the most demanding environments.

remaining environments.		MW26 / MW28	MW26 / MW28	MW35
Application	Materials	Class 130°C (B)	Class 155°C (F)	Class 180°C (H)
Transformer / Invertors / SMPS	Rynite® FR530 / FR531 / FR543 / FR945	R150	R250	R340
- Bobbins	Zytel® 70G30HSL / 70G30HSLR / 70G33HS1L / 70G33L	Z150	Z200	
	Zytel® HTNFR52G30BL	LZ100	LZ200	
Motor	Zytel® 70G30HSL / 70G30HSLR / 70G33HS1L / 70G33L	Z150	Z200	
	Crastin® T845FR / SK645FR		CZ255	
Solenoid	Rynite® 530HTE / FR530 / 815ER / 830ER	E101N	E200N	E300N
	Zytel® 70G33L	Z110E		
	Zytel® HTN51G35HSL	Z180E		
Relay	Rynite® FR530 / FR531	R150	R250	R340
Non-Halogen	Rynite® FR533NH /	RZ110	RZ200	
(New EIS)	Zytel® FR95G25V0NH /			
	Zytel® HTNFR52G30NH			

### UL 1446 / IEC 85 Encapsulated Insulation Systems

SYSTEM	CLASS	BOBBIN	ENCAPSULANT	MAGNET WIRE
E101	130°C/	Rynite® FR530	Rynite® FR530	MW 28,75,79,80
	CLASS B	Rynite® FR530L	Rynite® FR530L	
E101N	130°C/	Rynite® FR530	Rynite® FR530	MW 28,75,79,80
	CLASS B			
Z180E	130°C/	Zytel®	Zytel®	MW 28,75,79,80
	CLASS B	HTN51G35HSL	HTN51G35HSL	
E200	155°C/	Rynite® FR530	Rynite® 815ER	MW 79,80,82,83
	CLASS F	Rynite® FR530L		
E200N	155°C/	Rynite® FR530	Rynite® 815ER	MW 79,80,82,83
	CLASS F	Rynite® FR530L		
E300	180°C/	Rynite® 530HTE	Rynite® 530HTE	MW 35,73,74
	CLASS H	Rynite® 830ER	Rynite® 830ER	

### dupont.com



DuPont™, the DuPont Oval Logo, and all trademarks and service marks denoted with ™, 5M or ® are owned by affiliates of DuPont de Nemours, Inc. unless otherwise noted. © 2021 DuPont.

The information set forth herein is furnished free of charge and is based on technical data that DuPont believes to be reliable and falls within the normal range of properties. It is intended for use by persons having technical skill, at their own discretion and risk. This data should not be used to establish specification limits nor used alone as the basis of design. Handling precaution information is given with the understanding that those using it will satisfy themselves that their particular conditions of use present no health or safety hazards. Since conditions of product use and disposal are outside our control, we make no warranties, express or implied, and assume no liability in connection with any use of this information. As with any product, evaluation under end-use conditions prior to specification is essential. Nothing herein is to be taken as a license to operate or a recommendation to infringe on patents.