

NORYL™ RESIN 141E

DESCRIPTION

NORYL 141E compound is based on Polyphenylene Ether (PPE) resin containing conductive carbon powder. Added features of this grade include: Electrically Conductive.

GENERAL INFORMATION	
Features	Electrically Conductive, No PFAS intentionally added
Fillers	Carbon Powder
Polymer Types	Polyphenylene Ether + PS (PPE+PS)
Processing Techniques	Injection Molding

INDUSTRY	SUB INDUSTRY
Electrical and Electronics	Electronic Components
Industrial	Material Handling

TYPICAL PROPERTY VALUES

Revision 20231109

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
MECHANICAL ⁽¹⁾			
Tensile Stress, yield	59	MPa	SABIC - Japan Method
Tensile Strain, break	7	%	SABIC - Japan Method
Flexural Stress	88	MPa	ASTM D790
Flexural Modulus	2650	MPa	ASTM D790
IMPACT ⁽¹⁾			
Izod Impact, notched, 23°C	59	J/m	ASTM D256
THERMAL ⁽¹⁾			
HDT, 0.45 MPa, 3.2 mm, unannealed	130	°C	ASTM D648
PHYSICAL ⁽¹⁾			
Specific Gravity	1.09	-	ASTM D792
Mold Shrinkage, flow, 3.2 mm ⁽²⁾	0.9 – 1	%	SABIC method
ELECTRICAL ⁽¹⁾			
Surface Resistivity ⁽³⁾	1.E+04	Ω	ASTM D257
INJECTION MOLDING ⁽⁴⁾			
Drying Temperature	100	°C	
Drying Time	3 – 5	Hrs	
Maximum Moisture Content	0.02	%	
Melt Temperature	270 – 310	°C	
Nozzle Temperature	265 – 305	°C	
Front - Zone 3 Temperature	270 – 310	°C	
Middle - Zone 2 Temperature	260 – 300	°C	
Rear - Zone 1 Temperature	250 – 290	°C	
Mold Temperature	70 – 110	°C	

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
Back pressure (Plastic Pressure)	5 – 10	MPa	
Screw speed (Circumferential speed)	0.1 – 0.2	m/s	
Shot to Cylinder Size	30 – 70	%	

- (1) The information stated on Technical Datasheets should be used as indicative only for material selection purposes and not be utilized as specification or used for part or tool design.
- (2) Measurements made from laboratory test coupon. Actual shrinkage may vary outside of range due to differences in processing conditions, equipment, part geometry and tool design. It is recommended that mold shrinkage studies be performed with surrogate or legacy tooling prior to cutting tools for new molded article.
- (3) Measurement meets requirements as specified in ASTM D4496.
- (4) Injection Molding parameters are only mentioned as general guidelines. These may not apply or may need adjustment in specific situations such as low shot sizes, large part molding, thin wall molding and gas-assist molding.

DISCLAIMER

Any sale by SABIC, its subsidiaries and affiliates (each a "seller"), is made exclusively under seller's standard conditions of sale (available upon request) unless agreed otherwise in writing and signed on behalf of the seller. While the information contained herein is given in good faith, SELLER MAKES NO WARRANTY, EXPRESS OR IMPLIED, INCLUDING MERCHANTABILITY AND NON-INFRINGEMENT OF INTELLECTUAL PROPERTY, NOR ASSUMES ANY LIABILITY, DIRECT OR INDIRECT, WITH RESPECT TO THE PERFORMANCE, SUITABILITY OR FITNESS FOR INTENDED USE OR PURPOSE OF THESE PRODUCTS IN ANY APPLICATION. Each customer must determine the suitability of seller materials for the customer's particular use through appropriate testing and analysis. No statement by seller concerning a possible use of any product, service or design is intended, or should be construed, to grant any license under any patent or other intellectual property right.