

# NORYL™ RESIN NC208

## DESCRIPTION

NORYL NC208 compound is based on Polyphenylene Ether (PPE) resin containing 8% carbon fiber. Added features of this grade include: Electrically Conductive, Non-Brominated, Non-Chlorinated Flame Retardant.

GENERAL INFORMATION	
Features	Flame Retardant, Electrically Conductive, Good Processability, Non Cl/Br flame retardant, Carbon fiber filled, High stiffness/Strength, No PFAS intentionally added
Fillers	Carbon Fiber
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 20240715

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
<b>MECHANICAL <sup>(1)</sup></b>			
Tensile Stress, yield	78	MPa	SABIC - Japan Method
Tensile Strain, break	4 – 6	%	SABIC - Japan Method
Flexural Stress	117	MPa	ASTM D790
Flexural Modulus	4900	MPa	ASTM D790
Hardness, Rockwell M	88	-	ASTM D785
<b>IMPACT <sup>(1)</sup></b>			
Izod Impact, notched, 23°C	58	J/m	ASTM D256
<b>THERMAL <sup>(1)</sup></b>			
HDT, 0.45 MPa, 3.2 mm, unannealed	132	°C	ASTM D648
CTE, -30°C to 30°C	3.9E-05 – 5.8E-05	1/°C	TMA
<b>PHYSICAL <sup>(1)</sup></b>			
Specific Gravity	1.14	-	ASTM D792
Water Absorption, (23°C/24hrs)	0.06	%	ASTM D570
Mold Shrinkage, flow, 3.2 mm <sup>(2)</sup>	0.2 – 0.4	%	SABIC method
<b>ELECTRICAL <sup>(1)</sup></b>			
Surface Resistivity <sup>(3)</sup>	1.E+08 – 1.E+12	Ω	ASTM D257
<b>FLAME CHARACTERISTICS <sup>(4)</sup></b>			
UL Yellow Card Link	<a href="#">E45587-237056</a>	-	-
UL Recognized, 94V-1 Flame Class Rating	1.5	mm	UL 94
<b>INJECTION MOLDING <sup>(5)</sup></b>			
Drying Temperature	100	°C	
Drying Time	3 – 5	Hrs	

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
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	
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) UL Ratings shown on the technical datasheet might not cover the full range of thicknesses, colors and regions. For details, please see the UL Yellow Card.
- (5) 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.

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