

# NORYL™ RESIN EM6101

REGION AMERICAS

## DESCRIPTION

NORYL EM6101 is a non-reinforced blend of polyphenylene ether (PPE) + polystyrene (PS). This grade has improved flow characteristics and overall processing economy with a heat deflection temperature (HDT) of 123c and good property retention over a wide temperature range. NORYL EM6101 resin is an excellent candidate for automotive interior applications.

GENERAL INFORMATION	
Features	Hydrolytic Stability, Low Warpage, Amorphous, Low Shrinkage, Low Moisture Absorption, Low Specific Gravity, Dimensional stability, No PFAS intentionally added
Fillers	Unreinforced
Polymer Types	Polyphenylene Ether + PS (PPE+PS)
Processing Techniques	Injection Molding

INDUSTRY	SUB INDUSTRY
Automotive	Automotive Interiors

## TYPICAL PROPERTY VALUES

Revision 20231109

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
<b>MECHANICAL <sup>(1)</sup></b>			
Tensile Stress, yld, Type I, 50 mm/min	53	MPa	ASTM D638
Tensile Strain, brk, Type I, 50 mm/min	50	%	ASTM D638
Flexural Stress, yld, 2.6 mm/min, 100 mm span	81	MPa	ASTM D790
Flexural Modulus, 2.6 mm/min, 100 mm span	2300	MPa	ASTM D790
<b>IMPACT <sup>(1)</sup></b>			
Izod Impact, notched, 23°C	320	J/m	ASTM D256
Izod Impact, notched, -40°C	160	J/m	ASTM D256
Instrumented Dart Impact Energy @ peak, 23°C	53	J	ASTM D3763
Instrumented Dart Impact Energy @ peak, -30°C	25	J	ASTM D3763
<b>THERMAL <sup>(1)</sup></b>			
HDT, 0.45 MPa, 6.4 mm, unannealed	123	°C	ASTM D648
HDT, 1.82 MPa, 6.4 mm, unannealed	121	°C	ASTM D648
CTE, 0°C to 100°C, flow	9.36E-05	1/°C	ASTM E831
<b>PHYSICAL <sup>(1)</sup></b>			
Specific Gravity	1.05	-	ASTM D792
Water Absorption, (23°C/24hrs)	0.2	%	ASTM D570
Mold Shrinkage, flow, 3.2 mm <sup>(2)</sup>	0.5 – 0.7	%	SABIC method
<b>INJECTION MOLDING <sup>(3)</sup></b>			
Drying Temperature	95 – 105	°C	
Drying Time	3 – 4	Hrs	
Drying Time (Cumulative)	8	Hrs	

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
Maximum Moisture Content	0.02	%	
Melt Temperature	265 – 295	°C	
Nozzle Temperature	265 – 295	°C	
Front - Zone 3 Temperature	255 – 295	°C	
Middle - Zone 2 Temperature	245 – 290	°C	
Rear - Zone 1 Temperature	230 – 280	°C	
Mold Temperature	65 – 95	°C	
Back Pressure	0.3 – 0.7	MPa	
Screw Speed	20 – 100	rpm	
Shot to Cylinder Size	30 – 70	%	
Vent Depth	0.038 – 0.051	mm	

- (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) 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.

## ADDITIONAL PRODUCT NOTES

No PFAS intentionally added: The grade listed in this document does not contain PFAS intentionally added during Seller's manufacturing process and is not expected to contain unintentional PFAS impurities. Each user is responsible for evaluating the presence of unintentional PFAS impurities.

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