

# NORYL™ RESIN ZM3242

REGION ASIA

## DESCRIPTION

NORYL ZM3242 resin is a 30% mineral reinforced blend of polyphenylene ether (PPE) + polystyrene (PS). This injection moldable grade exhibits super low warpage and contains non-brominated, non-chlorinated flame retardant with a UL94 flame rating of V1 at 1.2mm. NORYL ZM3242 resin contains mold release and may be an excellent candidate for consumer electronic / document handling applications.

GENERAL INFORMATION	
Features	Flame Retardant, Good Processability, Hydrolytic Stability, Low Warpage, Amorphous, Low Shrinkage, Low Moisture Absorption, Low Specific Gravity, Non Cl/Br flame retardant, Non halogenated flame retardant, Enhanced mold release, Dimensional stability, High stiffness/Strength, No PFAS intentionally added
Fillers	Mineral
Polymer Types	Polyphenylene Ether + PS (PPE+PS)
Processing Techniques	Injection Molding
INDUSTRY	SUB INDUSTRY
Electrical and Electronics	Mobile Phone - Computer - Tablets
Industrial	Electrical

## TYPICAL PROPERTY VALUES

Revision 20231109

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
<b>MECHANICAL <sup>(1)</sup></b>			
Tensile Stress, brk, Type I, 5 mm/min	65	MPa	ASTM D638
Tensile Strain, brk, Type I, 5 mm/min	6	%	ASTM D638
Flexural Stress, yld, 1.3 mm/min, 50 mm span	104	MPa	ASTM D790
Flexural Modulus, 1.3 mm/min, 50 mm span	5770	MPa	ASTM D790
<b>IMPACT <sup>(1)</sup></b>			
Izod Impact, notched, 23°C	23	J/m	ASTM D256
<b>THERMAL <sup>(1)</sup></b>			
HDT, 1.82 MPa, 6.4 mm, unannealed	110	°C	ASTM D648
CTE, -40°C to 40°C, flow	4.E-05	1/°C	ASTM E831
CTE, -40°C to 40°C, xflow	5.1E-05	1/°C	ASTM E831
Relative Temp Index, Elec <sup>(2)</sup>	65	°C	UL 746B
Relative Temp Index, Mech w/impact <sup>(2)</sup>	65	°C	UL 746B
Relative Temp Index, Mech w/o impact <sup>(2)</sup>	65	°C	UL 746B
<b>PHYSICAL <sup>(1)</sup></b>			
Specific Gravity	1.35	-	ASTM D792
Mold Shrinkage, flow, 3.2 mm <sup>(3)</sup>	0.4	%	SABIC method
Melt Flow Rate, 300°C/2.16 kgf	27	g/10 min	ASTM D1238
<b>FLAME CHARACTERISTICS <sup>(2)</sup></b>			
UL Yellow Card Link	<a href="#">E207780-309727</a>	-	-
UL Recognized, 94V-1 Flame Class Rating	≥1.2	mm	UL 94

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
<b>INJECTION MOLDING <sup>(4)</sup></b>			
Drying Temperature	90 – 100	°C	
Drying Time	2 – 4	Hrs	
Melt Temperature	280 – 300	°C	
Nozzle Temperature	280 – 300	°C	
Front - Zone 3 Temperature	280 – 300	°C	
Middle - Zone 2 Temperature	270 – 290	°C	
Rear - Zone 1 Temperature	260 – 280	°C	
Mold Temperature	70 – 90	°C	

- (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) 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.
- (3) 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.
- (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.

## 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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