

NORYL™ RESIN N802

REGION AMERICAS

DESCRIPTION

NORYL N802 resin is a non-reinforced blend of polyphenylene ether (PPE) + polystyrene (PS). This injection moldable grade contains non-brominated, non-chlorinated flame retardant and carries a UL94 flame rating of V2 at 0.8mm. NORYL N802 resin exhibits high flow, good dimensional stability, and low specific gravity. It is an excellent candidate for a variety of printer applications.

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

TYPICAL PROPERTY VALUES

Revision 20231109

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
MECHANICAL ⁽¹⁾			
Tensile Stress, yield	35	MPa	SABIC - Japan Method
Tensile Strain, break	50	%	SABIC - Japan Method
Flexural Stress	53	MPa	ASTM D790
Flexural Modulus	2150	MPa	ASTM D790
IMPACT ⁽¹⁾			
Izod Impact, notched, 23°C	78	J/m	ASTM D256
THERMAL ⁽¹⁾			
HDT, 1.82 MPa, 6.4 mm, unannealed	80	°C	ASTM D648
CTE, -30°C to 30°C	7.00E-05	1/°C	TMA
PHYSICAL ⁽¹⁾			
Specific Gravity	1.08	-	ASTM D792
Water Absorption, (23°C/24hrs)	0.07	%	ASTM D570
Mold Shrinkage, flow, 3.2 mm ⁽²⁾	0.5 – 0.7	%	SABIC method
Melt Flow Rate, 260°C/2.16 kgf	21	g/10 min	ASTM D1238
FLAME CHARACTERISTICS ⁽³⁾			
UL Yellow Card Link	E121562-101771660	-	-
UL Recognized, 94V-2 Flame Class Rating	≥0.8	mm	UL 94
INJECTION MOLDING ⁽⁴⁾			
Drying Temperature	80 – 85	°C	
Drying Time	2 – 4	Hrs	

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
Drying Time (Cumulative)	8	Hrs	
Melt Temperature	230	°C	
Nozzle Temperature	190 – 230	°C	
Front - Zone 3 Temperature	190 – 230	°C	
Middle - Zone 2 Temperature	190 – 230	°C	
Rear - Zone 1 Temperature	175 – 225	°C	
Mold Temperature	40 – 65	°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) 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.
- (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.

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