



**NORYL™ Resin SA120**  
**Americas: COMMERCIAL**

NORYL SA120 resin is a low molecular weight polymer based on Polyphenylene ether (PPE). NORYL SA120 is intended for use as additive or building block in a variety of thermoplastics, thermoplastic elastomers like Styrenic Block Copolymers, and thermoset materials like Epoxies, Phenolics, Polyurethanes, and Unsaturated Polyesters. Properties that may be improved by adding NORYL SA120 resin to these thermosets can include: Thermal (glass transition temperature), Adhesion (at elevated temperatures), Mechanical (toughness, dimensional stability), Chemical resistance (acids, bases), Moisture absorption, and Electrical Properties (dielectric constant, dissipation factor).

TYPICAL PROPERTIES <sup>1</sup>	TYPICAL VALUE	Unit	Standard
<b>THERMAL</b>			
Tg (half width)	165	°C	SABIC Method
<b>PHYSICAL</b>			
Physical Form	PELLET	-	SABIC Method
Bulk Density	1	kg/m <sup>3</sup>	ISO 1183
Intrinsic Viscosity	0.12	dl/g	SABIC Method
Phenolic End-group Content	425	? mol/g	SABIC Method
Gardner Color, 20% in Toluene, Initial	12	-	SABIC Method
Gardner Color, 20% in Toluene, Aged 177C, 24 hrs, nitrogen	14	-	SABIC Method
Mw	6300	-	SABIC Method
Mn	2350	-	SABIC Method
D	2.7	-	SABIC Method
Viscosity, pure, 240°C	734	poise	SABIC Method
<b>ELECTRICAL</b>			
Dielectric Constant, 1 MHz	2.54	-	ASTM D 150
Dissipation Factor, 1 MHz	0.0007	-	ASTM D 150

(1) Typical values only. Variations within normal tolerances are possible for various colors. All values are measured after at least 48 hours storage at 23°C/50% relative humidity. All properties, except the melt volume and melt flow rates, are measured on injection molded samples. All samples tested under ISO test standards are prepared according to ISO 294.

(2) Only typical data for selection purposes. Not to be used for part or tool design.

(3) This rating is not intended to reflect hazards presented by this or any other material under actual fire conditions.

(4) Internal measurements according to UL standards.

(5) 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.

(6) Needs hard coat to consistently pass 60 sec Vertical Burn.

Source GMD, last updated:

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