

**NORYL™ Resin N850 - Asia**

(PPE+PS)

Saudi Basic Industries Corporation (SABIC)

**Product Texts**

NORYL™ N850 resin is a non-reinforced blend of polyphenylene ether (PPE) + high impact polystyrene (HIPS). This high flow, injection moldable grade contains non-brominated, non-chlorinated flame retardant and carries a UL94 flame rating of 5VA at 3mm and V0 at 1.5mm along with UL746C Outdoor Suitability rating of F2. NORYL N850 resin exhibits high impact strength, dimensional stability, hydrolytic stability, and very low moisture absorption. This material is an excellent candidate for electrical and business equipment applications.

Processing/Physical Characteristics	Value	Unit	Test Standard
<b>ASTM Data</b>			
Melt Flow Index, MFI	18	g/10min	ASTM D 1238
Temperature	260	°C	-
Load	3.8	kg	-

Mechanical properties	Value	Unit	Test Standard
<b>ISO Data</b>			
Tensile Modulus	2950	MPa	ISO 527
Yield stress	66	MPa	ISO 527
Yield strain	3.2	%	ISO 527
Stress at break	61	MPa	ISO 527
Strain at break	4.5	%	ISO 527
Flexural modulus	2600	MPa	ISO 178
Izod notched impact strength, +23°C, 4mm	10	kJ/m <sup>2</sup>	ISO 180/1A

<b>ASTM Data</b>			
Tensile Modulus	2620	MPa	ASTM D 638
Tensile Strength at Yield	62	MPa	ASTM D 638
Tensile Strength at Break	48	MPa	ASTM D 638
Elongation at Yield	3.6	%	ASTM D 638
Elongation at Break	18	%	ASTM D 638
Flexural Modulus	2410	MPa	ASTM D 790
Izod Impact notched, 1/8 in	213	J/m	ASTM D 256

Thermal properties	Value	Unit	Test Standard
<b>ISO Data</b>			
Temp. of deflection under load, 1.80 MPa	82	°C	ISO 75-1/-2
Temp. of deflection under load, 0.45 MPa	95	°C	ISO 75-1/-2
Vicat softening temperature, 120°C/h 50N	108	°C	ISO 306
Burning behav. at 1.5 mm nom. thickn.	V-0	class	IEC 60695-11-10
Thickness tested	1.5	mm	-
Burning behav. at thickness h	HB	class	IEC 60695-11-10
Thickness tested	1.0	mm	-
Burning behav. 5V at thickness h	5VA	class	IEC 60695-11-20
Thickness tested	3.0	mm	-
<b>ASTM Data</b>			
DTUL @ 66 psi	93	°C	ASTM D 648
DTUL @ 264 psi	82	°C	ASTM D 648
Vicat Temperature	101	°C	ASTM D 1525

Other properties	Value	Unit	Test Standard
Density	1130	kg/m <sup>3</sup>	ASTM D 792

Processing Recommendation Injection Molding	Value	Unit	Test Standard
Pre-drying - Temperature	75 - 80	°C	-
Pre-drying - Time	3 - 4	h	-
Processing humidity	≤0.02	%	-
Melt temperature	250 - 275	°C	-
Mold temperature	55 - 75	°C	-
Zone 1	215 - 265	°C	-
Zone 2	225 - 270	°C	-
Zone 3	240 - 275	°C	-

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Screw speed	<b>20 - 100</b>	rpm	-
Back pressure	<b>0.3 - 0.7</b>	MPa	-

**Characteristics****Processing**

Injection Molding

**Chemical Resistance**

Hydrolytically Stable

**Additives**

Flame retarding agent

**Regional Availability**

Asia Pacific

**Special Characteristics**

Flame retardant