

Product Texts

NORYL™ NHP9023 resin is a 15% glass reinforced blend of polyphenylene ether (PPE) + high impact polystyrene (HIPS). This injection moldable grade contains non-brominated, non-chlorinated flame retardant and carries a UL94 flame rating of V0 1.5mm and V1 at 0.75mm for thin-wall molding capability. NORYL NHP9023 is based on a unique co-polymer technology and exhibits good dimensional stability, high heat resistance, strong electrical performance, and very low specific gravity. It is an excellent candidate for copier fuser units, business equipment internal components, and electrical applications where thin-wall FR, modulus retention, and high heat resistance are required.

Processing/Physical Characteristics	Value	Unit	Test Standard
ISO Data			
Melt volume-flow rate, MVR	17	cm ³ /10min	ISO 1133
Temperature	280	°C	-
Load	10	kg	-
ASTM Data			
Melt Flow Index, MFI	20	g/10min	ASTM D 1238
Temperature	300	°C	-
Load	5	kg	-

Mechanical properties	Value	Unit	Test Standard
ISO Data			
Tensile Modulus	5500	MPa	ISO 527
Stress at break	90	MPa	ISO 527
Strain at break	2.7	%	ISO 527
Flexural modulus	4900	MPa	ISO 178
Charpy impact strength, +23°C, 3mm	27	kJ/m ²	ISO 179/1eU
Charpy impact strength, -30°C, 3mm	31	kJ/m ²	ISO 179/1eU
Charpy notched impact strength, +23°C	7	kJ/m ²	ISO 179/1eA
Izod impact strength, +23°C, 4mm	27	kJ/m ²	ISO 180/1U
Izod impact strength, -30°C, 4mm	28	kJ/m ²	ISO 180/1U
Izod notched impact strength, +23°C, 4mm	7	kJ/m ²	ISO 180/1A
Izod notched impact strength, -30°C, 4mm	6	kJ/m ²	ISO 180/1A
ASTM Data			
Tensile Modulus	5400	MPa	ASTM D 638
Tensile Strength at Break	112	MPa	ASTM D 638
Elongation at Break	2.9	%	ASTM D 638
Flexural Modulus	5200	MPa	ASTM D 790
Rockwell Hardness	R 121	-	ASTM D 785
Izod Impact notched, 1/8 in	500	J/m	ASTM D 256

Thermal properties	Value	Unit	Test Standard
ISO Data			
Vicat softening temperature, B	161	°C	ISO 306
Vicat softening temperature, 120°C/h 50N	163	°C	ISO 306
Glow Wire Flammability Index (GWFI)	960	°C	IEC 60695-2-12
GWFI - thickness tested (3)	3.2	mm	-

Electrical properties	Value	Unit	Test Standard
ISO Data			
Comparative tracking index	175	-	IEC 60112

Other properties	Value	Unit	Test Standard
Water absorption	0.2	%	Sim. to ISO 62
Humidity absorption	0.11	%	Sim. to ISO 62
Density	1210	kg/m ³	ISO 1183
Density	1210	kg/m ³	ASTM D 792

Processing Recommendation Injection Molding	Value	Unit	Test Standard
Pre-drying - Temperature	110 - 120	°C	-

NORYL™ Resin NHP9023 - Europe

(PPE+PS)-GF15

Saudi Basic Industries Corporation (SABIC)

Pre-drying - Time	3 - 4	h	-
Processing humidity	≤0.02	%	-
Melt temperature	300 - 325	°C	-
Mold temperature	80 - 110	°C	-
Zone 1	265 - 315	°C	-
Zone 2	275 - 320	°C	-
Zone 3	290 - 325	°C	-
Screw speed	20 - 100	rpm	-
Back pressure	0.3 - 0.7	MPa	-

Characteristics**Processing**

Injection Molding

Additives

Flame retarding agent

Special Characteristics

Flame retardant

Regional Availability

Europe