



NORYL™ Resin RN0401
Americas: COMMERCIAL

Noryl RN0401 resin is an unfilled Post Consumer Recycle (PCR) based injection moldable modified polyphenylene ether blend comprising at least 20% PCR content. Available in black only.

TYPICAL PROPERTIES ¹	TYPICAL VALUE	Unit	Standard
MECHANICAL			
Tensile Stress, yld, Type I, 50 mm/min	560	kgf/cm ²	ASTM D 638
Tensile Stress, brk, Type I, 50 mm/min	400	kgf/cm ²	ASTM D 638
Tensile Strain, yld, Type I, 50 mm/min	3	%	ASTM D 638
Tensile Strain, brk, Type I, 50 mm/min	15	%	ASTM D 638
Tensile Modulus, 5 mm/min	21400	kgf/cm ²	ASTM D 638
Flexural Stress, yld, 1.3 mm/min, 50 mm span	810	kgf/cm ²	ASTM D 790
Flexural Modulus, 1.3 mm/min, 50 mm span	25400	kgf/cm ²	ASTM D 790
Tensile Stress, yield, 50 mm/min	50	MPa	ISO 527
Tensile Stress, break, 50 mm/min	35	MPa	ISO 527
Tensile Strain, yield, 50 mm/min	3	%	ISO 527
Tensile Strain, break, 50 mm/min	15	%	ISO 527
Tensile Modulus, 1 mm/min	2200	MPa	ISO 527
Flexural Stress, yield, 2 mm/min	75	MPa	ISO 178
Flexural Modulus, 2 mm/min	2300	MPa	ISO 178
IMPACT			
Izod Impact, notched, 23°C	10	cm-kgf/cm	ASTM D 256
Izod Impact, notched 80*10*4 +23°C	9	kJ/m ²	ISO 180/1A
THERMAL			
HDT, 1.82 MPa, 3.2mm, unannealed	70	°C	ASTM D 648
Vicat Softening Temp, Rate B/120	94	°C	ISO 306
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	70	°C	ISO 75/Af
Relative Temp Index, Elec	65	°C	UL 746B
Relative Temp Index, Mech w/impact	65	°C	UL 746B

(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.

Source GMD, last updated:

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TYPICAL PROPERTIES ¹	TYPICAL VALUE	Unit	Standard
THERMAL			
Relative Temp Index, Mech w/o impact	65	°C	UL 746B
PHYSICAL			
Specific Gravity	1.12	-	ASTM D 792
Melt Flow Rate, 260°C/5.0 kgf	30	g/10 min	ASTM D 1238
Density	1.11	g/cm ³	ISO 1183
Melt Volume Rate, MVR at 260°C/5.0 kg	30	cm ³ /10 min	ISO 1133
ELECTRICAL			
Dielectric Strength, in oil, 3.2 mm	25	kV/mm	ASTM D 149
Arc Resistance, Tungsten {PLC}	7	PLC Code	ASTM D 495
High Voltage Arc Track Rate {PLC}	3	PLC Code	UL 746A
Comparative Tracking Index (UL) {PLC}	2	PLC Code	UL 746A
FLAME CHARACTERISTICS			
UL Compliant, 94V-0 Flame Class Rating (3)(4)	2	mm	UL 94 by SABIC-IP

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PROCESSING PARAMETERS	TYPICAL VALUE	Unit
Injection Molding		
Drying Temperature	70 - 80	°C
Drying Time	2 - 4	hrs
Melt Temperature	240 - 270	°C
Mold Temperature	60 - 80	°C

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