NORYL GTX™ RESIN GTX674PC

REGION EUROPE

DESCRIPTION

NORYL GTX™ 674PC resin is a conductive, non-reinforced alloy of Polyphenylene Ether (PPE) + Polyamide (PA). This injection moldable grade is optimized to allow for in- or on-line primer-less powder coat painting around corners and holes with a Class A Surface. NORYL GTX674PC resin exhibits high heat resistance, improved surface appearance and is an excellent candidate for automotive applications such as mirror housings and brackets. This material is only available in black.

TYPICAL PROPERTY VALUES

Revision 20190620

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
MECHANICAL			
Tensile Stress, yld, Type I, 50 mm/min	65	MPa	ASTM D 638
Tensile Stress, brk, Type I, 50 mm/min	64	MPa	ASTM D 638
Tensile Strain, yld, Type I, 50 mm/min	3	%	ASTM D 638
Tensile Strain, brk, Type I, 50 mm/min	4	%	ASTM D 638
Tensile Modulus, 5 mm/min	2810	MPa	ASTM D 638
Flexural Stress, yld, 1.3 mm/min, 50 mm span	109	MPa	ASTM D 790
Flexural Modulus, 1.3 mm/min, 50 mm span	2890	MPa	ASTM D 790
Tensile Stress, break, 50 mm/min	60	MPa	ISO 527
Tensile Strain, yield, 50 mm/min	3	%	ISO 527
Tensile Strain, break, 50 mm/min	4	%	ISO 527
Flexural Stress, yield, 2 mm/min	103	MPa	ISO 178
Flexural Modulus, 2 mm/min	2480	MPa	ISO 178
IMPACT			
Izod Impact, notched, 23°C	74	J/m	ASTM D 256
Izod Impact, notched, -30°C	50	J/m	ASTM D 256
Instrumented Impact Total Energy, 23°C	4	J	ASTM D 3763
THERMAL			
Vicat Softening Temp, Rate B/50	197	°C	ASTM D 1525
HDT, 0.45 MPa, 3.2 mm, unannealed	188	°C	ASTM D 648
CTE, -40°C to 40°C, flow	7.6E-05	1/°C	ASTM E 831
CTE, -40°C to 40°C, xflow	7.8E-05	1/°C	ASTM E 831
CTE, 23°C to 80°C, flow	8.1E-05	1/°C	ISO 11359-2
CTE, 23°C to 80°C, xflow	8.6E-05	1/°C	ISO 11359-2
Vicat Softening Temp, Rate B/50	197	°C	ISO 306
Vicat Softening Temp, Rate B/120	196	°C	ISO 306
HDT/Bf, 0.45 MPa Flatw 80*10*4 sp=64mm	185	°C	ISO 75/Bf
PHYSICAL			
Specific Gravity	1.11	-	ASTM D 792
Mold Shrinkage, flow, 3.2 mm	1 – 1.3	%	SABIC method
Melt Flow Rate, 300°C/5.0 kgf	25	g/10 min	ASTM D 1238
ELECTRICAL			
Volume Resistivity	1000 – 10000	Ohm-cm	SABIC method

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PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
INJECTION MOLDING			
Drying Temperature	95 – 105	°C	
Drying Time	3 – 4	hrs	
Drying Time (Cumulative)	8	hrs	
Maximum Moisture Content	0.07	%	
Minimum Moisture Content	0.02	%	
Melt Temperature	280 – 305	°C	
Nozzle Temperature	280 – 305	°C	
Front - Zone 3 Temperature	275 – 305	°C	
Middle - Zone 2 Temperature	270 – 305	°C	
Rear - Zone 1 Temperature	265 – 305	°C	
Mold Temperature	75 – 120	°C	
Back Pressure	0.3 – 1.4	MPa	
Screw Speed	20 – 100	rpm	
Shot to Cylinder Size	30 – 50	%	
Vent Depth	0.013 – 0.038	mm	

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