NORYL GTX™ RESIN GTX985

REGION ASIA

DESCRIPTION

NORYL GTX™ 985 resin is a conductive, 18% mineral reinforced alloy of Polyphenylene Ether (PPE) + Polyamide (PA). This injection moldable grade combines high stiffness, excellent chemical resistance, and high heat resistance. NORYL GTX985 is conductive for primerless electrostatic painting and is an excellent candidate for automotive exterior trim applications.

TYPICAL PROPERTY VALUES

Revision 20190925

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
MECHANICAL			
Tensile Stress, yld, Type I, 5 mm/min	65	MPa	ASTM D 638
Tensile Stress, brk, Type I, 5 mm/min	60	MPa	ASTM D 638
Tensile Strain, yld, Type I, 5 mm/min	4	%	ASTM D 638
Tensile Strain, brk, Type I, 5 mm/min	7	%	ASTM D 638
Tensile Modulus, 5 mm/min	60	MPa	ASTM D 638
Flexural Stress, yld, 1.3 mm/min, 50 mm span	110	MPa	ASTM D 790
Flexural Modulus, 1.3 mm/min, 50 mm span	4200	MPa	ASTM D 790
Tensile Stress, yield, 5 mm/min	65	MPa	ISO 527
Tensile Stress, break, 5 mm/min	60	MPa	ISO 527
Tensile Strain, yield, 5 mm/min	4	%	ISO 527
Tensile Strain, break, 5 mm/min	7	%	ISO 527
Tensile Modulus, 1 mm/min	4400	MPa	ISO 527
Flexural Stress, yield, 2 mm/min	105	MPa	ISO 178
Flexural Modulus, 2 mm/min	4350	MPa	ISO 178
IMPACT			
Izod Impact, notched, 23°C	45	J/m	ASTM D 256
Izod Impact, notched, -30°C	40	J/m	ASTM D 256
Instrumented Impact Total Energy, 23°C	10	J	ASTM D 3763
Izod Impact, unnotched 80*10*3 +23°C	60	kJ/m²	ISO 180/1U
Izod Impact, unnotched 80*10*3 -30°C	55	kJ/m²	ISO 180/1U
Izod Impact, notched 80*10*4 +23°C	4	kJ/m²	ISO 180/1A
Izod Impact, notched 80*10*4 -30°C	4	kJ/m²	ISO 180/1A
Charpy 23°C, V-notch Edgew 80*10*4 sp=62mm	4	kJ/m²	ISO 179/1eA
THERMAL			
Vicat Softening Temp, Rate B/50	195	°C	ASTM D 1525
HDT, 0.45 MPa, 3.2 mm, unannealed	200	°C	ASTM D 648
CTE, 23°C to 60°C, flow	6.E-05	1/°C	ISO 11359-2
CTE, 23°C to 60°C, xflow	6.5E-05	1/°C	ISO 11359-2
Vicat Softening Temp, Rate B/50	195	°C	ISO 306
Vicat Softening Temp, Rate B/120	200	°C	ISO 306
HDT/Bf, 0.45 MPa Flatw 80*10*4 sp=64mm	205	°C	ISO 75/Bf
PHYSICAL			
Specific Gravity	1.25	-	ASTM D 792

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PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
Mold Shrinkage, flow, 3.2 mm	1.1	%	SABIC method
Melt Flow Rate, 280°C/5.0 kgf	16	g/10 min	ASTM D 1238
Density	1.25	g/cm³	ISO 1183
Moisture Absorption (23°C / 50% RH)	1.1	%	ISO 62
Melt Volume Rate, MVR at 280°C/5.0 kg	15	cm³/10 min	ISO 1133
INJECTION MOLDING			
Drying Temperature	100 – 110	°C	
Drying Time	2 – 3	hrs	
Maximum Moisture Content	0.02	%	
Melt Temperature	280 – 300	°C	
Nozzle Temperature	270 – 290	°C	
Front - Zone 3 Temperature	280 – 300	°C	
Middle - Zone 2 Temperature	270 – 290	°C	
Rear - Zone 1 Temperature	260 – 280	°C	
Hopper Temperature	80 – 100	°C	
Mold Temperature	100 – 120	°C	

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