

NORYL GTXTM RESIN GTX8110P

REGION EUROPE

DESCRIPTION

NORYL GTX8110P resin is a 10% glass fiber reinforced alloy of Polyphenylene Ether (PPE) + Polyamide (PA). This extrudable grade has excellent chemical resistance, and high heat resistance. NORYL GTX8110P resin is anodizable, has low thermal conductivity, and is an excellent candidate for extruded thermal break applications.

GENERAL INFORMATION	
Features	Chemical Resistance, Hydrolytic Stability, Low Warpage, Low Moisture Absorption, Low Specific Gravity, Dimensional stability, High stiffness/Strength, High temperature resistance
Fillers	Glass Fiber
Polymer Types	Polyphenylene Ether + PA (PPE+Nylon)
Processing Techniques	Extrusion

INDUSTRY	SUB INDUSTRY	
Building and Construction	Building Component	

TYPICAL PROPERTY VALUES

Revision 20241218

MECHANICAL (1) Tensile Stress, yield, 5 mm/min 100 MPa ISO 527 Tensile Stress, break, 5 mm/min 95 MPa ISO 527 Tensile Strain, yield, 5 mm/min 4 % ISO 527 Tensile Strain, break, 5 mm/min 5 % ISO 527 Tensile Modulus, 1 mm/min 4500 MPa ISO 527 Flexural Stress, yield, 2 mm/min 135 MPa ISO 178 Flexural Modulus, 2 mm/min 3400 MPa ISO 178 IMPACT (1) Izod Impact, notched 80*10*4+23°C 7 kJ/m² ISO 180/1A Izod Impact, notched 80*10*4-30°C 6 kJ/m² ISO 180/1A Charpy 23°C, V-notch Edgew 80*10*4 sp=62mm 8 kJ/m² ISO 179/1eA THERMAL (1) CTE, 23°C to 60°C, flow 5.3E-05 1/°C ISO 11359-2 CTE, 23°C to 60°C, xflow 7.2E-05 1/°C ISO 306 Vicat Softening Temp, Rate B/50 225 °C ISO 306 Vicat Softening Temp, Rate B/120 225 °C ISO 306 <th>DROBERTIES</th> <th>TYDICAL VALUES</th> <th>UNITS</th> <th>TEST METHODS</th>	DROBERTIES	TYDICAL VALUES	UNITS	TEST METHODS
Tensile Stress, yield, 5 mm/min 100 MPa ISO 527 Tensile Stress, break, 5 mm/min 95 MPa ISO 527 Tensile Strain, yield, 5 mm/min 4 % ISO 527 Tensile Modulus, 1 mm/min 5 % ISO 527 Tensile Modulus, 1 mm/min 4500 MPa ISO 527 Flexural Stress, yield, 2 mm/min 135 MPa ISO 178 Flexural Modulus, 2 mm/min 3400 MPa ISO 178 IMPACT (1) Izod Impact, notched 80*10*4 +23°C 7 kl/m² ISO 180/1A Izod Impact, notched 80*10*4 +23°C 6 kl/m² ISO 180/1A Izod Impact, notched 80*10*4 +23°C 6 kl/m² ISO 180/1A Izod Impact, notched 80*10*4 +23°C 8 kl/m² ISO 180/1A Izod Impact, notched 80*10*4 +23°C 8 kl/m² ISO 180/1A Charpy 23°C, V-notch Edgew 80*10*4 sp=62mm 8 kl/m² ISO 179/1eA THERMAL (1) TCE, 23°C to 60°C, flow 5.3E-05 1/°C ISO 11359-2 CTE, 23°C to 60°C, xflow 7.2E-05 <td>PROPERTIES</td> <td>TYPICAL VALUES</td> <td>UNIIS</td> <td>TEST METHODS</td>	PROPERTIES	TYPICAL VALUES	UNIIS	TEST METHODS
Tensile Stress, break, 5 mm/min 95 MPa ISO 527 Tensile Strain, yield, 5 mm/min 4 % ISO 527 Tensile Strain, break, 5 mm/min 5 % ISO 527 Tensile Modulus, 1 mm/min 4500 MPa ISO 527 Flexural Stress, yield, 2 mm/min 135 MPa ISO 178 Flexural Modulus, 2 mm/min 3400 MPa ISO 178 IMPACT (¹) Izod Impact, notched 80*10*4 +23°C 7 kJ/m² ISO 180/1A Izod Impact, notched 80*10*4 -30°C 6 kJ/m² ISO 180/1A Charpy 23°C, V-notch Edgew 80*10*4 sp=62mm 8 kJ/m² ISO 179/1eA THERMAL (¹) CTE, 23°C to 60°C, flow 5.3E-05 1/°C ISO 11359-2 CTE, 23°C to 60°C, xflow 7.2E-05 1/°C ISO 11359-2 Vicat Softening Temp, Rate B/50 225 °C ISO 306 Vicat Softening Temp, Rate B/120 225 °C ISO 306	MECHANICAL (1)			
Tensile Strain, yield, 5 mm/min 4 % ISO 527 Tensile Strain, break, 5 mm/min 5 % ISO 527 Tensile Modulus, 1 mm/min 4500 MPa ISO 527 Flexural Stress, yield, 2 mm/min 135 MPa ISO 178 Flexural Modulus, 2 mm/min 3400 MPa ISO 178 IMPACT (¹) Izod Impact, notched 80*10*4 +23°C 7 IxI/m² ISO 180/1A Izod Impact, notched 80*10*4 -30°C 6 IxI/m² ISO 180/1A Charpy 23°C, V-notch Edgew 80*10*4 sp=62mm 8 IxI/m² ISO 180/1A THERMAL (¹) CTE, 23°C to 60°C, flow 5.3E-05 1/°C ISO 11359-2 CTE, 23°C to 60°C, flow 7.2E-05 1/°C ISO 11359-2 Vicat Softening Temp, Rate B/50 225 °C ISO 306 Vicat Softening Temp, Rate B/120 225 °C ISO 306	Tensile Stress, yield, 5 mm/min	100	MPa	ISO 527
Tensile Strain, break, 5 mm/min 5 % ISO 527 Tensile Modulus, 1 mm/min 4500 MPa ISO 527 Flexural Stress, yield, 2 mm/min 135 MPa ISO 178 IMPACT (¹) Izod Impact, notched 80*10*4 + 23°C 7 kJ/m² ISO 180/1A Izod Impact, notched 80*10*4 - 30°C 6 kJ/m² ISO 180/1A Charpy 23°C, V-notch Edgew 80*10*4 sp=62mm 8 kJ/m² ISO 179/1eA THERMAL (¹) CTE, 23°C to 60°C, flow 5.3E-05 1/°C ISO 11359-2 CTE, 23°C to 60°C, xflow 7.2E-05 1/°C ISO 11359-2 Vicat Softening Temp, Rate B/50 225 °C ISO 306 Vicat Softening Temp, Rate B/120 225 °C ISO 306	Tensile Stress, break, 5 mm/min	95	MPa	ISO 527
Tensile Modulus, 1 mm/min 4500 MPa ISO 527 Flexural Stress, yield, 2 mm/min 135 MPa ISO 178 IMPACT (¹) IXIMPACT (¹) Izod Impact, notched 80*10*4 +23°C 7 KJ/m² ISO 180/1A Izod Impact, notched 80*10*4 -30°C 6 KJ/m² ISO 180/1A Charpy 23°C, V-notch Edgew 80*10*4 sp=62mm 8 KJ/m² ISO 179/1eA THERMAL (¹¹) CTE, 23°C to 60°C, flow 5.3E-05 1/°C ISO 11359-2 CTE, 23°C to 60°C, xflow 7.2E-05 1/°C ISO 11359-2 Vicat Softening Temp, Rate B/50 225 °C ISO 306 Vicat Softening Temp, Rate B/120 225 °C ISO 306	Tensile Strain, yield, 5 mm/min	4	%	ISO 527
Flexural Stress, yield, 2 mm/min 135 MPa ISO 178 Flexural Modulus, 2 mm/min 3400 MPa ISO 178 IMPACT (1) Izod Impact, notched 80*10*4 +23°C 7 kJ/m² ISO 180/1A Izod Impact, notched 80*10*4 -30°C 6 kJ/m² ISO 180/1A Charpy 23°C, V-notch Edgew 80*10*4 sp=62mm 8 kJ/m² ISO 179/1eA THERMAL (1) CTE, 23°C to 60°C, flow 5.3E-05 1/°C ISO 11359-2 CTE, 23°C to 60°C, xflow 7.2E-05 1/°C ISO 11359-2 Vicat Softening Temp, Rate B/50 225 °C ISO 306 Vicat Softening Temp, Rate B/120 225 °C ISO 306	Tensile Strain, break, 5 mm/min	5	%	ISO 527
Flexural Modulus, 2 mm/min 3400 MPa ISO 178 IMPACT (¹) Izod Impact, notched 80*10*4 +23°C 7 kJ/m² ISO 180/1A Izod Impact, notched 80*10*4 -30°C 6 kJ/m² ISO 180/1A Charpy 23°C, V-notch Edgew 80*10*4 sp=62mm 8 kJ/m² ISO 179/1eA THERMAL (¹) CTE, 23°C to 60°C, flow 5.3E-05 1/°C ISO 11359-2 CTE, 23°C to 60°C, xflow 7.2E-05 1/°C ISO 11359-2 Vicat Softening Temp, Rate B/50 225 °C ISO 306 Vicat Softening Temp, Rate B/120 225 °C ISO 306	Tensile Modulus, 1 mm/min	4500	MPa	ISO 527
Izod Impact, notched 80*10*4 +23°C	Flexural Stress, yield, 2 mm/min	135	MPa	ISO 178
Izod Impact, notched 80*10*4 +23°C 7 kJ/m² ISO 180/1A Izod Impact, notched 80*10*4 -30°C 6 kJ/m² ISO 180/1A Charpy 23°C, V-notch Edgew 80*10*4 sp=62mm 8 kJ/m² ISO 179/1eA THERMAL (1) CTE, 23°C to 60°C, flow 5.3E-05 1/°C ISO 11359-2 CTE, 23°C to 60°C, xflow 7.2E-05 1/°C ISO 11359-2 Vicat Softening Temp, Rate B/50 225 °C ISO 306 Vicat Softening Temp, Rate B/120 225 °C ISO 306	Flexural Modulus, 2 mm/min	3400	MPa	ISO 178
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Charpy 23°C, V-notch Edgew 80*10*4 sp=62mm 8 kJ/m² ISO 179/1eA THERMAL (1) CTE, 23°C to 60°C, flow 5.3E-05 1/°C ISO 11359-2 CTE, 23°C to 60°C, xflow 7.2E-05 1/°C ISO 11359-2 Vicat Softening Temp, Rate B/50 225 °C ISO 306 Vicat Softening Temp, Rate B/120 225 °C ISO 306	Izod Impact, notched 80*10*4 +23°C	7	kJ/m²	ISO 180/1A
THERMAL (1) CTE, 23°C to 60°C, flow 5.3E-05 1/°C ISO 11359-2 CTE, 23°C to 60°C, xflow 7.2E-05 1/°C ISO 11359-2 Vicat Softening Temp, Rate B/50 225 °C ISO 306 Vicat Softening Temp, Rate B/120 225 °C ISO 306	Izod Impact, notched 80*10*4 -30°C	6	kJ/m²	ISO 180/1A
CTE, 23°C to 60°C, flow 5.3E-05 1/°C ISO 11359-2 CTE, 23°C to 60°C, xflow 7.2E-05 1/°C ISO 11359-2 Vicat Softening Temp, Rate B/50 225 °C ISO 306 Vicat Softening Temp, Rate B/120 225 °C ISO 306	Charpy 23°C, V-notch Edgew 80*10*4 sp=62mm	8	kJ/m²	ISO 179/1eA
CTE, 23°C to 60°C, xflow 7.2E-05 1/°C ISO 11359-2 Vicat Softening Temp, Rate B/50 225 °C ISO 306 Vicat Softening Temp, Rate B/120 225 °C ISO 306	THERMAL (1)			
Vicat Softening Temp, Rate B/50225°CISO 306Vicat Softening Temp, Rate B/120225°CISO 306	CTE, 23°C to 60°C, flow	5.3E-05	1/°C	ISO 11359-2
Vicat Softening Temp, Rate B/120 225 °C ISO 306	CTE, 23°C to 60°C, xflow	7.2E-05	1/°C	ISO 11359-2
	Vicat Softening Temp, Rate B/50	225	°C	ISO 306
HDT/Bf, 0.45 MPa Flatw 80*10*4 sp=64mm 205 °C ISO 75/Bf	Vicat Softening Temp, Rate B/120	225	°C	ISO 306
	HDT/Bf, 0.45 MPa Flatw 80*10*4 sp=64mm	205	°C	ISO 75/Bf
PHYSICAL (1)	PHYSICAL (1)			
Density 1.17 g/cm³ ISO 1183	Density	1.17	g/cm³	ISO 1183
Water Absorption, (23°C/saturated) 3 % ISO 62-1	Water Absorption, (23°C/saturated)	3	%	ISO 62-1
Moisture Absorption (23°C / 50% RH) 1.1 % ISO 62	Moisture Absorption (23°C / 50% RH)	1.1	%	ISO 62
Melt Volume Rate, MVR at 280°C/10.0 kg 14 cm³/10 min ISO 1133	Melt Volume Rate, MVR at 280°C/10.0 kg	14	cm³/10 min	ISO 1133

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CHEMISTRY THAT MATTERS"



PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
PROFILE EXTRUSION			
Drying Temperature	110 – 120	°C	
Drying Time	2 – 4	Hrs	
Melt Temperature	270 – 280	°C	
Calibrator Temperature	20 – 100	°C	

⁽¹⁾ The information stated on Technical Datasheets should be used as indicative only for material selection purposes and not be utilized as specification or used for part or tool design.

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