

Product Information

COMMERCIAL

NORYL®

Modified PPO® Resins

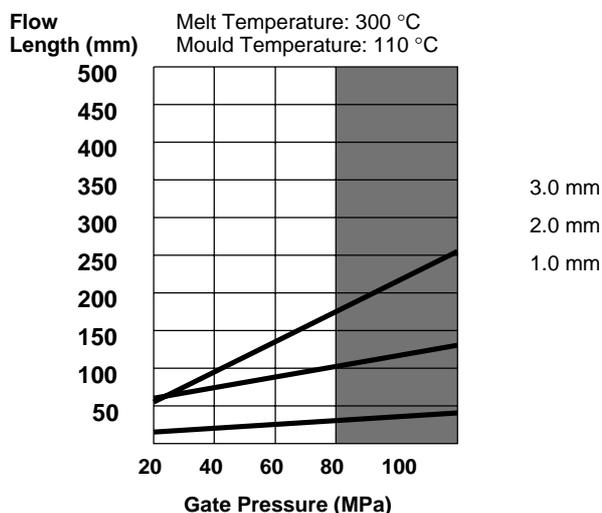
V01550

NORYL V01550 is a 15 % short glass fibre reinforced, flame retardant material with a HDT/A of 130°C according ISO 75. NORYL V01550 is V0 at 0.75 mm according UL94 and is halogen free according VDE/DIN 472 part 815. NORYL V01550 is designed for electronic and electro

technical components where dimensional stability and good surface quality is required. NORYL V01550 is available in all colours.

CALCULATED FLOW LENGTH INDICATION

Applied Moldflow's Multi-layer module for radial flow.

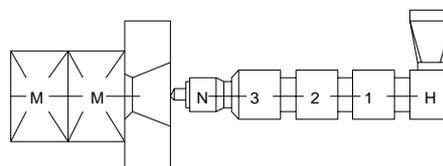
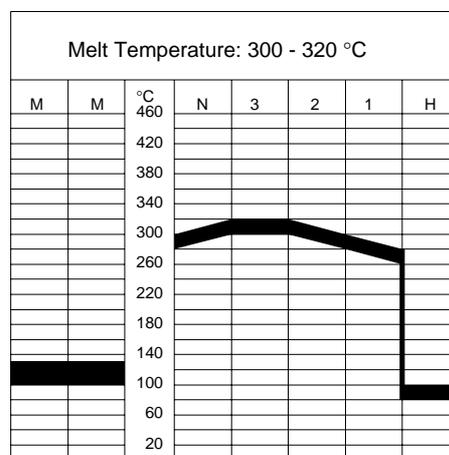


■ Technical support is recommended. Contact your local representative.

Moldflow is a registered trademark of Moldflow.

Predrying temperature/time : 110 - 120°C / 2-3 hrs
Recommended melt temperature : 300 - 320 °C
Recommended mould temperature : 100 - 130 °C

PROCESSING CONDITIONS



TYPICAL PROPERTIES ¹⁾	TYPICAL VALUE	UNIT	STANDARD
PHYSICAL			
Density	1.25	g/cm ³	ISO 1183
Water Absorption (23 °C / sat.) 1L	0.50	%	DIN 53495
Moisture Absorption (23 °C / 50% RH) 1L	0.06	%	DIN 53495
Mould Shrinkage on Tensile Bar, flow 2)	0.3-0.5	%	ASTM D955
RHEOLOGICAL			
Melt Viscosity, MV 300 °C / 1500 s-1	330	Pa.s	DIN 54811
Melt Volume Rate, MVR 280 °C / 5 kg	7	cm ³ /10min.	ISO 1133
Melt Volume Rate, MVR 300 °C / 5 kg	10	cm ³ /10min.	ISO 1133

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V01550

TYPICAL PROPERTIES ¹⁾	TYPICAL VALUE	UNIT	STANDARD	
MECHANICAL				
Hardness, H358/30	130	MPa	ISO 2039/1	
Taber Abrasion, CS-17, 1 kg	50	mg/1000cy	GE	
Tensile Stress at break,	5 mm/min	50	MPa	ISO 527
Tensile Strain at break,	5 mm/min	5.0	%	ISO 527
Tensile Modulus,	1 mm/min	2700	MPa	ISO 527
Flexural Strength at break,	2 mm/min	100	MPa	ISO 178
Flexural Modulus,	2 mm/min	3000	MPa	ISO 178
IMPACT				
Charpy Unnotched edgew. 80*10*4 s=62 mm, +23 °C	45	kJ/m ²	ISO 179/1eU	
Charpy Unnotched edgew. 80*10*4 s=62 mm, -30 °C	45	kJ/m ²	ISO 179/1eU	
Izod Impact, unnotched 80*10*4 +23 °C	45	kJ/m ²	ISO 180/1U	
Izod Impact, unnotched 80*10*4 - 30 °C	45	kJ/m ²	ISO 180/1U	
THERMAL				
Thermal Conductivity	0.28	W/m °C	DIN 52612	
Coeff. of Lin. Therm. Exp. flow	23 ± 80 °C	4E-5	1/°C	DIN 53752
Coeff. of Lin. Therm. Exp. xflow	23 ± 80 °C	6E-5	1/°C	DIN 53752
Ball Pressure Test,	125 °C ± 2 °C	PASSES	-	IEC 335-1
Ball Pressure Test, approx. maximum	145	°C	°C	IEC 335-1
Thermal Index, Electrical properties	50	°C	°C	UL 746B
Thermal Index, Mech. prop. with impact	50	°C	°C	UL 746B
Thermal Index, Mech. prop. w/o impact	50	°C	°C	UL 746B
Vicat A/50	160	°C	°C	ISO 306
Vicat B/50	150	°C	°C	ISO 306
Vicat B/120	155	°C	°C	ISO 306
HDT/Be, 0.45 MPa edgew. 120*10*4/s=100 mm	145	°C	°C	ISO 75/Be
HDT/Ae, 1.8 MPa edgew. 120*10*4/s=100 mm	135	°C	°C	ISO 75/Ae
FLAMMABILITY				
94V-0 Flame Class Rating 3)	0.75	mm	mm	UL 94
94-5VA Flame Class Rating 3)	3.20	mm	mm	UL 94
Oxygen Index 3)	32	%	%	ISO 4589
Glow Wire Test, 960 °C, Passes at	3.2	mm	mm	IEC 695-2-1
ELECTRICAL				
Volume Resistivity	1E15	Ohm-m	Ohm-m	IEC 93
Surface Resistivity, ROA	>1E15	Ohm	Ohm	IEC 93
Dielectric Strength, in oil, 0.8 mm	33	kV/mm	kV/mm	IEC 243
Dielectric Strength, in oil, 1.6 mm	26.0	kV/mm	kV/mm	IEC 243
Dielectric Strength, in oil, 3.2 mm	16.0	kV/mm	kV/mm	IEC 243
Relative Permittivity,	50 Hz	3.1	-	IEC 250
Relative Permittivity,	1 MHz	3.0	-	IEC 250
Dissipation Factor,	50 Hz	0.0050	-	IEC 250
Dissipation Factor,	1 MHz	0.0030	-	IEC 250
Comparative Tracking Index	250	V	V	IEC 112/3rd

1) Typical values only. Variations within normal tolerances are possible for various colours. All values are measured at least after 48 hours storage at 23°C/50% relative humidity. All properties, except the melt volume rate, are measured on injection moulded samples. All samples are prepared according ISO 294.

2) Only typical data for material 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) Own measurement according to UL.



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