LAVERGNE

VYPET VNT 340

PET 40% Glass/mineral Reinforced

Vypet VNT 340 is a 40% glass/mineral reinforced PET injection molding compound designed for electrical and structural applications.

Features
- High temperature performance
- Excellent strength & high stiffness
- Excellent dimensional stability

Typical Applications
- Electric motors
- Brackets
- Connectors
- Grills

Typical Resin Properties[(a)]	Method	Typical values
Mechanical		
Tensile Strength at break (5mm/min), 23°C (73 °F), MPa	ISO 527	111
Shear Strength, MPa	ASTM D732	58.5
Flexural Modulus (2 mm/min), Mpa	ISO 178	10500
Flexural Strength (2 mm/min), Mpa	ISO 178	170
Izod Impact 23°C (73 °F), kJ/m^2	ISO 180	5.7
Compressive Strength, (1.3mm/min), MPa	ASTM D695	151
Thermal		
Heat Deflection Temperature 1800 Kpa,°C	ISO 75	208
CLTE Parallel 23°C-55°C (73°F-130°F), µm/m -°C	ISO 11359-2	17
CLTE Parallel 73°F-130°F, µin/in -°F	ISO 11359-2	9.45
CLTE Transverse to Flow 23°C-55°C, µm/m -°C	ISO 11359-3	87
CLTE Transverse to Flow 73°F-130°F, µin/in -°F	ISO 11359-3	48
Melting point, °C	ISO 3146	249
Electrical		
Dielectric Constant 1 000 Hz	ASTM D150	3.8
Dielectric Strength, (1.6 mm at 23°C, 500V/s in oil), KV/mm	ASTM D149	21.9
Dielectric Strength, (3.2 mm at 23°C, 500V/s in oil), KV/mm	ASTM D149	16.2
Dissipation Factor 1 000 Hz	ASTM D150	0.011
Volume resistivity, Ohm-cm	ASTM D257	1.09E15
Flammability		
Flammability, (0.75 mm thickness)	UL94	HB
Flammability, (1.0 mm thickness), mm/min	ISO3795	47
Other		
Density @ 23°C (73°F), g/cm^3	ISO 1183	1.64
Hardness	ASTM D785	113 Rockwell R
Water absorption @ 23°C (73°F)/24h, %	ASTM D570	0.06
Linear Mold Shrinkage, Flow direction (2mmx60mmx60mm), %	ASTM D955	0.25
Linear Mold Shrinkage, Transverse direction (2mmx60mmx60mm), %	ASTM D955	0.53
Linear Mold Shrinkage, Flow direction (3.2mmx76mmx60mm), %	ASTM D955	0.32
Linear Mold Shrinkage, Transverse direction (3.2mmx76mmx60mm), %	ASTM D955	0.79
Glass/mineral content, %	ASTM D5630	40

(a) The property values are based on a limited number of tests and, therefore, should not be construed as product specifications.

Processing Guidelines

Drying

The VYPET VNT 340 must be thoroughly dried before molding, preferentially in a dehumidifying desiccant hopper dryer, operating with the following conditions: airflow rate of minimum 1.0 CFM/lb, dew point of –18°C to –40°C (-0.4°F to -40°F) or below.
The VYPET VNT 340 should be dried at 121°C (250°F) during 2 to 4 hours. The humidity of the material should be maintained below 0.02% during molding.

Molding

Vypet VNT products have a relatively wide processing window with barrel temperature settings as following:
- Feed zone: 260-270°C (500-520°F)
- Middle zone: 265-280°C (510-530°F)
- Front zone: 271-293°C (520-560°F)
- Nozzle: 280-299°C (530-570°F)
- Melt temperature: 280-299°C (530-570°F)
- Mold thick wall temperature: 75-95°C (165-195°F)
- Mold thin wall temperature: 95-125°C (203-257°F)

ISO/TS 16949 SGS

ISO 17025

Conseil canadien des normes
Standards Council of Canada

8800, Crescent 1 Ville d'Anjou, (Québec) Canada H1J 1C8
Tel. : 514-354-5757 Fax. : 514-354- 3087 Email : lavergne@lavergne.ca