LAVERGNE

VYPET VNT 645

PET 45% Glass Reinforced

Vypet VNT 645 is a 45% glass reinforced PET injection molding compound designed for electrical and structural applications.

Features

- High temperature performance
- Excellent strength and stiffness
- Excellent dimensional stability

Typical Applications

- Electric motors
- Brackets
- Connectors
- Grills

Typical Resin Properties[(a)]	ASTM Method	Typical values
Density at 23°C, g/cm^3	D792	1.68
Izod, notched, 23°C, J/m	D256	90
Tensile Strength @ break, 23°C, MPa	D638	160
Flexural Strength (1.3 mm/min) MPa	D790	240
Flexural Modulus (1.3 mm/min), MPa	D790	12800
Flexural Modulus (1.3 mm/min), Kpsi	D790	1864
HDT, @ 264 psi, °C	D648	227

(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 grades process easily but must be thoroughly dried before molding, preferably in a dehumidifying desiccant hopper dryer, operating with an air flow rate of min 1.0 CFM/lb, dew point of -18°C or lower. The material should be dried at 121°C (250° F) for 4 hours and the humidity content 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 temperature: 94-122°C (200-250°F)

Other Molding Parameters

- Injection Pressure: 8000-12000 psi
- Injection Speed: Fast to improve aesthetics and reduce stress
- Back Pressure: Low (25-50 psi)
- Screw Speed: 50-75 rpm

ISO 17025

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