



# 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 <sup>(a)</sup>	ASTM Method	Typical values
Density at 23°C, g/cm <sup>3</sup>	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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