

# DuPont™ Zytel® HTN52GM50EF WT001

## HIGH PERFORMANCE POLYAMIDE RESIN

### Product Information

Zytel® HTN high performance polyamide resins feature high retention of properties upon exposure to elevated temperature, to high moisture, and to harsh chemical environments. Polymer families and grades of Zytel® HTN are tailored to optimize performance as well as processability.

Typical applications with Zytel® HTN include demanding applications in the automotive, electrical and electronics, domestic appliances, and construction industries.

Zytel® HTN52GM50EF WT001 is a glass and mineral reinforced high performance polyamide resin developed for LED reflector applications. It is also a PPA resin.

General information	Value	Unit	Test Standard
Part Marking Code	>PA6T/66-(MD+GF) 45<	-	ISO 11469
Part Marking Code	>PPA-(MD+GF)45<	-	SAE J1344
Rheological properties	dry / cond	Unit	Test Standard
Molding shrinkage, parallel	0.6 / -	%	ISO 294-4, 2577
Molding shrinkage, normal	1.0 / -	%	ISO 294-4, 2577
Mechanical properties	dry / cond	Unit	Test Standard
Tensile Modulus	7000 / -	MPa	ISO 527-1/-2
Stress at break	80 / -	MPa	ISO 527-1/-2
Strain at break	1.3 / -	%	ISO 527-1/-2
Flexural Modulus	6100 / -	MPa	ISO 178
Flexural Strength	130 / -	MPa	ISO 178
Charpy notched impact strength, 73 °F	2 / -	kJ/m <sup>2</sup>	ISO 179/1eA
Thermal properties	dry / cond	Unit	Test Standard
Melting temperature, first heat	310 / *	°C	ISO 11357-1/-3
Temp. of deflection under load, 260 psi	200 / *	°C	ISO 75-1/-2
Coeff. of linear therm. expansion, parallel	45 / *	E-6/K	ISO 11359-1/-2
Coeff. of linear therm. expansion normal	60 / *	E-6/K	ISO 11359-1/-2
Normal, -40-23 °C	53 / *	E-6/K	
Normal, 55-160 °C	86 / *	E-6/K	
Parallel, -40-23 °C	43 / *	E-6/K	
Parallel, 55-160 °C	51 / *	E-6/K	
Flammability	Value	Unit	Test Standard
FMVSS Class	B	-	ISO 3795 (FMVSS 302)
Burning rate, Thickness 1 mm	<100	mm/min	ISO 3795 (FMVSS 302)
Other properties	dry / cond	Unit	Test Standard
Density	1700 / -	kg/m <sup>3</sup>	ISO 1183
Injection	Value	Unit	Test Standard
Drying Recommended	yes	-	-
Drying Temperature	≥100	°C	-
Drying Time, Dehumidified Dryer	6 - 8	h	-
Processing Moisture Content	≤0.1	%	-
Melt Temperature Optimum	325	°C	-
Min. melt temperature	320	°C	-
Max. melt temperature	330	°C	-
Min. mold temperature	120	°C	-
Max. mold temperature	140	°C	-

### Characteristics

Processing	<ul style="list-style-type: none"> <li>Injection Molding</li> </ul>
Special characteristics	<ul style="list-style-type: none"> <li>Heat stabilized or stable to heat</li> </ul>

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To find out more, visit [DuPont Performance Polymers](#) or contact nearest DuPont location.

North America

Asia Pacific

Europe/Middle East/Africa

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## HIGH PERFORMANCE POLYAMIDE RESIN

### Regional Availability

- North America
- Europe

- Asia Pacific
- South and Central America

- Near East/Africa
- Global

### Processing Texts

#### Injection molding

During molding, use proper protective equipment and adequate ventilation. Avoid exposure to fumes and limit the hold up time and temperature of the resin in the machine. Purge degraded resin carefully with HDPE.

Contact DuPont for Material Safety Data Sheet, general guides and/or additional information about ventilation, handling, purging, drying, etc. ISO Mechanical properties measured at 160 mil (Hytrel® measured at 80 mil), IEC Electrical properties measured at 80 mil, all ASTM properties measured at 120 mil, and test temperatures are 73°F unless otherwise stated.

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#### North America

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