DuPont™ Zytel® HTNLTFR52G30NH BL662 (Preliminary Data)

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® HTNLTFR52G30NH BL662 is a 30% glass reinforced, flame retardant high performance polyamide resin developed for laser welding applications. It is also a PPA resin and it uses a non-halogenated flame retardant.

| General information | Value | Unit | Test Standard |
|--|------------------|----------|-----------------|
| Resin Identification | PA6T/66-GF30FR(4 | | ISO 1043 |
| Nesin identification | 0) | _ | 130 1043 |
| Part Marking Code | PA6T/66-GF30FR(4 | | ISO 11469 |
| r art marking code | 0) | _ | 130 11407 |
| Part Marking Code | >PPA-GF30FR< | - | SAE J1344 |
| Rheological properties | dry / cond | Unit | Test Standard |
| Molding shrinkage, parallel | 0.3 / - | % | ISO 294-4, 2577 |
| Molding shrinkage, parattet Molding shrinkage, normal | 0.8 / - | % | ISO 294-4, 2577 |
| Mechanical properties | dry / cond | Unit | Test Standard |
| Tensile Modulus | 10800 / 10400 | MPa | ISO 527-1/-2 |
| Stress at break | 148 / 125 | MPa | ISO 527-17-2 |
| Strain at break | 2.2 / 2.2 | % | ISO 527-17-2 |
| Flexural Modulus | 10500 / 10000 | MPa | ISO 178 |
| Flexural Strength | 215 / 192 | MPa | ISO 178 |
| Charpy impact strength | 213 / 1/2 | mia | ISO 179/1eU |
| 73°F | 46 / 40 | kJ/m² | 150 1777 100 |
| -22°F | 40 / 40 | kJ/m² | |
| Charpy notched impact strength | 70 / 70 | NJ/III | ISO 179/1eA |
| 73°F | 6 / 6 | kJ/m² | 150 1777 TEA |
| -22°F | 6 / 5 | kJ/m² | |
| Thermal properties | dry / cond | Unit | Test Standard |
| Melting temperature, first heat | 310 / * | °C | ISO 11357-1/-3 |
| Temp. of deflection under load, 260 psi | 283 / * | °C | ISO 75-1/-2 |
| Coeff. of linear therm. expansion, parallel | 25 / * | E-6/K | ISO 11359-1/-2 |
| Coeff. of linear therm. expansion | | 2 0/10 | ISO 11359-1/-2 |
| normal | 68 / * | E-6/K | 150 11537 17 2 |
| Normal, -40-23°C | 57 / * | E-6/K | |
| Normal, 55-160°C | 118 / * | E-6/K | |
| Parallel, -40-23°C | 21 / * | E-6/K | |
| Parallel, 55-160°C | 27 / * | E-6/K | |
| RTI, electrical | ZI I | L-0/ K | UL 746B |
| 15mil | 140 | °C | OL 740D |
| 60mil | 140 / * | °C | |
| 120mil | 140 / | °C | |
| RTI, impact | 140 | <u> </u> | UL 746B |
| 60mil | 115 / * | °C | UL /400 |
| 120mil | | °C | |
| IZUMIL | | | |
| | 120 | | III 746 D |
| RTI, strength | | | UL 746B |
| | 125 / * 130 | °C °C | UL 746B |

Revised: 2018-01-12 Page: 1 of 2

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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| Flammability | dry / cond | Unit | Test Standard |
|---|--|----------------------|------------------|
| Burning Behav. at thickness h | V-0 / * | class | IEC 60695-11-10 |
| Thickness tested | 0.4 / * | mm | IEC 60695-11-10 |
| UL recognition | yes / * | - | UL 94 |
| Electrical properties | dry / cond | Unit | Test Standard |
| Comparative tracking index | 600 / - | - | IEC 60112 |
| Electric Strength, Short Time, 2mm | 27 / - | kV/mm | IEC 60243-1 |
| Other properties | dry / cond | Unit | Test Standard |
| Density | 1450 / - | kg/m³ | ISO 1183 |
| | | | |
| Injection | Value | Unit | Test Standard |
| , | | | Test Standard |
| Injection | Value | Unit | |
| Injection Drying Recommended | Value yes | Unit | - |
| Injection Drying Recommended Drying Temperature | Value yes ≥100 | Unit - °C | - |
| Injection Drying Recommended Drying Temperature Drying Time, Dehumidified Dryer | Value yes ≥100 6 - 8 | Unit - °C h | - - - |
| Injection Drying Recommended Drying Temperature Drying Time, Dehumidified Dryer Processing Moisture Content | Value yes ≥100 6 - 8 ≤0.1 | Unit - °C h % | - - - |
| Injection Drying Recommended Drying Temperature Drying Time, Dehumidified Dryer Processing Moisture Content Min. melt temperature | Value yes ≥100 6 - 8 ≤0.1 320 | Unit - °C h % °C | - - - - |

| Characteristics | | | |
|-----------------------|---------------------------------------|---|--------------------------------------|
| Processing | Injection Molding | | |
| Regional Availability | North America | Asia Pacific | Near East/Africa |
| | • Europe | South and Central America | • Global |

Processing Texts

Injection molding

For molding machine components, use corrosion resistant and wear resistant steel. For details please contact your DuPont representative. Limit the residence time of the resin in the machine. Use proper protective equipment and adequate ventilation.

The above data are preliminary and are subject to change as additional data are developed on subsequent lots.

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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Revised: 2018-01-12 Page: 2 of 2

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