

# Zytel® HTN 51G35HSLR BK420

HIGH PERFORMANCE POLYAMIDE RESIN

DuPont Performance Polymers

Message:

35% Glass Reinforced, PPA, High Performance Polyamide

| General Information                   |                                            |             |                   |             |
|---------------------------------------|--------------------------------------------|-------------|-------------------|-------------|
| Filler / Reinforcement                | Glass Fiber,35% Filler by Weight           |             |                   |             |
| Additive                              | Heat Stabilizer                            |             |                   |             |
|                                       | Lubricant                                  |             |                   |             |
|                                       | Mold Release                               |             |                   |             |
| Features                              | Heat Stabilized                            |             |                   |             |
|                                       | Lubricated                                 |             |                   |             |
| Forms                                 | Pellets                                    |             |                   |             |
| Processing Method                     | Injection Molding                          |             |                   |             |
| Multi-Point Data                      | Isothermal Stress vs. Strain (ISO 11403-1) |             |                   |             |
|                                       | Secant Modulus vs. Strain (ISO 11403-1)    |             |                   |             |
| Part Marking Code (ISO 11469)         | >PA6T/XT-GF35<                             |             |                   |             |
| Part Marking Code (SAE J1344)         | >PPA-GF35<                                 |             |                   |             |
| Physical                              | Dry                                        | Conditioned | Unit              | Test Method |
| Density                               | 1.47                                       | --          | g/cm <sup>3</sup> | ISO 1183    |
| Molding Shrinkage                     |                                            |             |                   | ISO 294-4   |
| Across Flow                           | 0.60                                       | --          | %                 |             |
| Across Flow : 80°C, 48 hr             | 0.0                                        | --          | %                 |             |
| Flow                                  | 0.20                                       | --          | %                 |             |
| Flow : 80°C, 48 hr                    | 0.0                                        | --          | %                 |             |
| Hardness                              | Dry                                        | Conditioned | Unit              | Test Method |
| Ball Indentation Hardness (H 961/30)  | 310                                        | --          | MPa               | ISO 2039-1  |
| Mechanical                            | Dry                                        | Conditioned | Unit              | Test Method |
| Tensile Modulus                       | 11500                                      | 11500       | MPa               | ISO 527-2   |
| Tensile Stress (Break)                | 200                                        | 190         | MPa               | ISO 527-2   |
| Tensile Strain (Break)                | 2.3                                        | 2.0         | %                 | ISO 527-2   |
| Flexural Modulus                      | 10500                                      | --          | MPa               | ISO 178     |
| Impact                                | Dry                                        | Conditioned | Unit              | Test Method |
| Charpy Notched Impact Strength (23°C) | 9.0                                        | 8.0         | kJ/m <sup>2</sup> | ISO 179/1eA |

|                                         |         |             |                   |             |
|-----------------------------------------|---------|-------------|-------------------|-------------|
| Charpy Unnotched Impact Strength (23°C) | 50      | 35          | kJ/m <sup>2</sup> | ISO 179/1eU |
| Thermal                                 | Dry     | Conditioned | Unit              | Test Method |
| Heat Deflection Temperature             |         |             |                   |             |
| 0.45 MPa, Unannealed                    | 276     | --          | °C                | ISO 75-2/B  |
| 1.8 MPa, Unannealed                     | 262     | --          | °C                | ISO 75-2/A  |
| Melting Temperature <sup>1</sup>        | 300     | --          | °C                | ISO 11357-3 |
| CLTE                                    |         |             |                   | ISO 11359-2 |
| Flow                                    | 2.0E-5  | --          | cm/cm/°C          |             |
| Flow : -40 to 23°C                      | 2.0E-5  | --          | cm/cm/°C          |             |
| Transverse                              | 5.8E-5  | --          | cm/cm/°C          |             |
| Transverse : -40 to 23°C                | 5.5E-5  | --          | cm/cm/°C          |             |
| Electrical                              | Dry     | Conditioned | Unit              | Test Method |
| Volume Resistivity                      | 1.0E+15 | --          | ohms·cm           | IEC 60093   |
| Electric Strength                       | 34      | 33          | kV/mm             | IEC 60243-1 |
| Flammability                            | Dry     | Conditioned | Unit              | Test Method |
| Burning Rate (1.00 mm)                  | 28      | --          | mm/min            | ISO 3795    |
| NOTE                                    |         |             |                   |             |

1. First Heat

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