

## Nylene® 51EGR33 BK

Polymeric Resources Corporation (PRC) - Polyamide 66

### General Information

#### Product Description

33% Glass Reinforced, Pre-Colored Black, Economy Grade, Nylon 6/6

#### General

|                        |                                     |
|------------------------|-------------------------------------|
| Material Status        | • Commercial: Active                |
| Availability           | • North America                     |
| Filler / Reinforcement | • Glass Fiber, 33% Filler by Weight |
| Appearance             | • Black                             |
| Forms                  | • Pellets                           |
| Processing Method      | • Injection Molding                 |

### Properties <sup>1</sup>

| Physical  | Nominal Value | Unit     | Test Method |
|---|---------------|----------|-------------|
| Density / Specific Gravity  | 1.39          |          | ASTM D792   |
| Mechanical  | Nominal Value | Unit     | Test Method |
| Tensile Strength (Yield, 73°F)                                    | 21500         | psi      | ASTM D638   |
| Tensile Elongation (Break)  | 3.0           | %        | ASTM D638   |
| Flexural Modulus  | 1.20E+6       | psi      | ASTM D790   |
| Flexural Strength   | 39000         | psi      | ASTM D790   |
| Impact  | Nominal Value | Unit     | Test Method |
| Notched Izod Impact (73°F, 0.125 in)                              | 1.6           | ft-lb/in | ASTM D256   |
| Thermal   | Nominal Value | Unit     | Test Method |
| Deflection Temperature Under Load (66 psi, Unannealed, 0.125 in)  | 500           | °F       | ASTM D648   |
| Deflection Temperature Under Load (264 psi, Unannealed, 0.125 in) | 480           | °F       | ASTM D648   |
| Flammability  | Nominal Value | Unit     | Test Method |
| Flame Rating (0.12 in)  | HB            |          | UL 94       |

### Processing Information

| Injection              | Nominal Value | Unit |
|------------------------|---------------|------|
| Drying Temperature     | 180           | °F   |
| Drying Time            | 2.0 to 4.0    | hr   |
| Suggested Max Moisture | 2.0E-3        | %    |
| Rear Temperature       | 480 to 540    | °F   |
| Middle Temperature     | 520 to 559    | °F   |
| Front Temperature      | 520 to 559    | °F   |
| Nozzle Temperature     | 520 to 559    | °F   |
| Processing (Melt) Temp | 520 to 540    | °F   |
| Mold Temperature       | 81 to 160     | °F   |
| Back Pressure          | 50.0 to 100   | psi  |

