

# Ecomass® 1850ZN66T1

Polyamide 6

Ecomass Technologies

## Message:

Ecomass® 1850ZN66T1 is a polyamide 6 (nylon 6) material that contains a steel filler. This product is available in North America and is processed by injection molding. Ecomass® The main characteristics of 1850ZN66T1 are: impact modification.

| General Information                  |                     |                    |                 |
|--------------------------------------|---------------------|--------------------|-----------------|
| Filler / Reinforcement               | Steel filler        |                    |                 |
| Additive                             | Impact modifier     |                    |                 |
| Features                             | Impact modification |                    |                 |
| Forms                                | Particle            |                    |                 |
| Processing Method                    | Injection molding   |                    |                 |
| Physical                             | Nominal Value       | Unit               | Test Method     |
| Density                              | 2.49                | g/cm <sup>3</sup>  | Internal method |
| Molding Shrinkage                    | 0.80 - 1.0          | %                  | Internal method |
| Mechanical                           | Nominal Value       | Unit               | Test Method     |
| Tensile Stress (Yield)               | 31.0                | MPa                | ISO 527-2       |
| Tensile Strain (Break)               | 10                  | %                  | ISO 527-2       |
| Flexural Modulus                     | 2800                | MPa                | ISO 178         |
| Impact                               | Nominal Value       | Unit               | Test Method     |
| Notched Izod Impact                  | 7.5                 | kJ/m <sup>2</sup>  | ISO 180/A       |
| Thermal                              | Nominal Value       | Unit               | Test Method     |
| Heat Deflection Temperature          |                     |                    |                 |
| 0.45 MPa, not annealed               | 150                 | °C                 | ISO 75-2/B      |
| 1.8 MPa, not annealed                | 50.0                | °C                 | ISO 75-2/A      |
| Injection                            | Nominal Value       | Unit               |                 |
| Drying Temperature - Desiccant Dryer | 73.9 - 79.4         | °C                 |                 |
| Drying Time - Desiccant Dryer        | 4.0 - 6.0           | hr                 |                 |
| Processing (Melt) Temp               | 232 - 260           | °C                 |                 |
| Mold Temperature                     | 57.2 - 79.4         | °C                 |                 |
| Injection Rate                       | Moderate-Fast       |                    |                 |
| Back Pressure                        | 0.103 - 0.172       | MPa                |                 |
| Screw Speed                          | 100 - 250           | rpm                |                 |
| Clamp Tonnage                        | 3.4 - 5.5           | kN/cm <sup>2</sup> |                 |
| Cushion                              | 6.35 - 12.7         | mm                 |                 |
| Screw L/D Ratio                      | 20.0:1.0            |                    |                 |
| Screw Compression Ratio              | 2.5:1.0             |                    |                 |
| Injection instructions               |                     |                    |                 |

Pack (Hold) Pressure: 65 to 75% of Injection Pressure Fill Time: 1.0 to 2.0 in/sec Pack (Hold) Time: 10 to 15 sec Cooling Time: As required Feed Throat: Cooled Nozzle Type: Reverse Taper Check Type: Free Flow Maximum Drying Temp: 200 °F Dryer Dew Point: -20 to -40 °F Minimum Air Flow: 0.8 to 1.0 CFM Injection Pressure: As Required

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