

## Technical Data Sheet

### Vitamide BI12 DARK IRON 6-3130



Polyamide 6

#### Product Description

Vitamide BI12 DARK IRON 6-3130 is a Polyamide 6 material and is typically used in Injection Molding applications. Features include: High Impact Resistance.

|                   |                        |
|-------------------|------------------------|
| Processing Method | Injection Molding      |
| Attribute         | High Impact Resistance |
| Application       | Protective Coverings   |

| Typical Properties                                      | Nominal Value       | Units             | Test Method |
|---------------------------------------------------------|---------------------|-------------------|-------------|
| <b>Physical</b>                                         |                     |                   |             |
| Density                                                 | 1.11                | g/cm <sup>3</sup> | ISO 1183    |
| <b>Mechanical</b>                                       |                     |                   |             |
| Tensile Stress at Yield                                 | 60                  | MPa               | ISO 527-2   |
| Tensile Strain at Break                                 | 50                  | %                 | ISO 527-2   |
| Flexural Modulus                                        | 1800                | MPa               | ISO 178     |
| Flexural Stress                                         | 80                  | MPa               | ISO 178     |
| <b>Impact</b>                                           |                     |                   |             |
| Notched Izod Impact Strength                            | 12                  | kJ/m <sup>2</sup> | ISO 180     |
| <b>Thermal</b>                                          |                     |                   |             |
| Deflection Temperature Under Load Unannealed (0.45 MPa) | 160                 | °C                | ISO 75-2/B  |
| Deflection Temperature Under Load Unannealed (1.80 MPa) | 60                  | °C                | ISO 75-2/A  |
| DSC Melting Point                                       | 221                 | °C                | ISO 3146    |
| <b>Electrical</b>                                       |                     |                   |             |
| Dielectric Strength, (2.00 mm)                          | 21                  | kV/mm             | IEC 60243-1 |
| Comparative Tracking Index (CTI), (Solution A)          | 600                 | V                 | IEC 60112   |
| Surface Resistivity                                     | 1000000000<br>00000 | ohm               | IEC 60093   |
| <b>Flammable</b>                                        |                     |                   |             |
| Burning Rate                                            |                     |                   |             |
| (2.00 mm)                                               | <100                | mm/min            | FMVSS 302   |
| (2.00 mm)                                               | <100                | mm/min            | ISO 3795    |
| <b>UL Information</b>                                   |                     |                   |             |
| Flame Rating                                            | HB                  |                   | UL 94       |

| Injection Parameters   | Nominal Value | Units |
|------------------------|---------------|-------|
| Drying Time            | 3.0 to 4.0    | hr    |
| Drying Temperature     | 80            | °C    |
| Processing (Melt) Temp | 250 to 270    | °C    |
| Mold Temperature       | 60 to 90      | °C    |