

## Technical Data Sheet

### Vitamide 66 AS10 BLK 6603



Polyamide 66

#### Product Description

General purpose, Medium viscosity, Lubricated Polyamide 66. Suitable for a wide range of applications this grade offers an effective cycle time and a good balance of stiffness and impact strength. Available with enhanced UV (AS20), heat stability (AS30) and cycle time performance (AS40). Colour matched compounds and customer specific performance requirements are available on request. Listed as V2 under UL File Reference E132739

**Processing Method**      Injection Molding

| Typical Properties                                                   | Nominal Value | Units             | Test Method    |
|----------------------------------------------------------------------|---------------|-------------------|----------------|
| <b>Physical</b>                                                      |               |                   |                |
| Density                                                              | 1.13          | g/cm <sup>3</sup> | ISO 1183       |
| <b>Mechanical</b>                                                    |               |                   |                |
| Tensile Strain at Break                                              | 40            | %                 | ISO 527-2      |
| Flexural Modulus                                                     | 2900          | MPa               | ISO 178        |
| Tensile Stress at Break                                              | 85            | MPa               | ISO 527-2      |
| Flexural Stress                                                      | 105           | MPa               | ISO 178        |
| <b>Impact</b>                                                        |               |                   |                |
| Charpy Impact Strength - Notched, (23 °C, Type 1, Edgewise, Notch A) | 4.5           | kJ/m <sup>2</sup> | ISO 179        |
| Notched Izod Impact Strength                                         | 5             | kJ/m <sup>2</sup> | ISO 180        |
| <b>Hardness</b>                                                      |               |                   |                |
| Shore Hardness, (Shore D)                                            | 84            |                   | ISO 868        |
| Rockwell Hardness, (R-Scale)                                         | 120           |                   | ISO 2039-2     |
| Ball Indentation Hardness                                            | 155           | MPa               | ISO 2039-1     |
| <b>Thermal</b>                                                       |               |                   |                |
| Vicat Softening Temperature, (B (50N), 120 °C/h)                     | 198           | °C                | ISO 306        |
| Deflection Temperature Under Load Unannealed (0.45 MPa)              | 223           | °C                | ISO 75-2/B     |
| Deflection Temperature Under Load Unannealed (1.80 MPa)              | 80            | °C                | ISO 75-2/A     |
| Melting Temperature                                                  | 260           | °C                | ISO 11357-3    |
| <b>Electrical</b>                                                    |               |                   |                |
| Dielectric Strength                                                  | 27            | kV/mm             | ASTM D149      |
| Comparative Tracking Index (CTI)                                     | 600           | V                 | IEC 60112      |
| Surface Resistivity                                                  | 1E+16         | ohm               | ASTM D257      |
| <b>Flammable</b>                                                     |               |                   |                |
| Burning Rate                                                         | 100           | mm/min            | ISO 3795       |
| Glow Wire Flammability Index                                         | 850           | °C                | IEC 60695-2-12 |
| <b>Additional Information</b>                                        |               |                   |                |

|                           |     |   |           |
|---------------------------|-----|---|-----------|
| Molding Shrinkage         | 1.5 | % | ISO 294-4 |
| Water Absorption 23C/50RH | 2.3 | % | ISO 62    |
| Water Absorption 24h/23C  | 1.5 | % | ISO 62    |
| Water Absorption Sat/23C  | 8.5 | % | ISO 62    |

**UL Information**

|              |     |       |
|--------------|-----|-------|
| Flame Rating | V-2 | UL 94 |
|--------------|-----|-------|

| Injection Parameters   | Nominal Value | Units |
|------------------------|---------------|-------|
| Drying Time            | 3.0 to 4.0    | hr    |
| Drying Temperature     | 80            | °C    |
| Processing (Melt) Temp | 270 to 290    | °C    |
| Mold Temperature       | 60 to 100     | °C    |