

## Technical Data Sheet

### Schulamid 66 MV3 NAT

Polyamide 66

#### Product Description

Schulamid 66 MV3 NAT is a Polyamide 66 material and is typically used in Injection Molding applications. Features include: Medium Viscosity.

|                   |                   |
|-------------------|-------------------|
| Processing Method | Injection Molding |
| Attribute         | Medium Viscosity  |

| Typical Properties                                | Nominal Value | Units              | Test Method    |
|---------------------------------------------------|---------------|--------------------|----------------|
| <b>Physical</b>                                   |               |                    |                |
| Density, (Method A)                               | 1.14          | g/cm <sup>3</sup>  | ISO 1183       |
| Viscosity Number                                  | 145           | cm <sup>3</sup> /g | ISO 307        |
| <b>Mechanical</b>                                 |               |                    |                |
| Tensile Stress at Yield                           |               |                    |                |
| (Type 1A, 50 mm/min)                              | 90.0          | MPa                | ISO 527-2      |
| (Type 1A, 50 mm/min) - Conditioned                | 70.0          | MPa                | ISO 527-2      |
| Tensile Strain at Yield                           |               |                    |                |
| (Type 1A, 50 mm/min)                              | 4.0           | %                  | ISO 527-2      |
| (Type 1A, 50 mm/min) - Conditioned                | 15            | %                  | ISO 527-2      |
| Tensile Modulus                                   |               |                    |                |
| (1 mm/min, Type 1A)                               | 3000          | MPa                | ISO 527-1      |
| (1 mm/min, Type 1A) - Conditioned                 | 1500          | MPa                | ISO 527-1      |
| <b>Impact</b>                                     |               |                    |                |
| Charpy Impact Strength - Notched                  |               |                    |                |
| (23 °C, Type 1, Edgewise, Notch A)                | 9.0           | kJ/m <sup>2</sup>  | ISO 179        |
| (-30 °C, Type 1, Edgewise, Notch A)               | 7.0           | kJ/m <sup>2</sup>  | ISO 179        |
| (23 °C, Type 1, Edgewise, Notch A) - Conditioned  | 13            | kJ/m <sup>2</sup>  | ISO 179        |
| (-30 °C, Type 1, Edgewise, Notch A) - Conditioned | 5.0           | kJ/m <sup>2</sup>  | ISO 179        |
| Charpy Impact Strength - Unnotched                |               |                    |                |
| (23 °C, Type 1, Edgewise)                         | 150           | kJ/m <sup>2</sup>  | ISO 179        |
| (-30 °C, Type 1, Edgewise)                        | 95            | kJ/m <sup>2</sup>  | ISO 179        |
| (23 °C, Type 1, Edgewise) - Conditioned           | No Break      |                    | ISO 179        |
| (-30 °C, Type 1, Edgewise) - Conditioned          | No Break      |                    | ISO 179        |
| Unnotched Izod Impact Strength, (23 °C, Type 1)   | No Break      |                    | ISO 180        |
| <b>Hardness</b>                                   |               |                    |                |
| Ball Indentation Hardness, (H 358/30)             | 150           | MPa                | ISO 2039-1     |
| Ball Pressure Test, (165 °C)                      | Pass          |                    | IEC 60695-10-2 |
| <b>Thermal</b>                                    |               |                    |                |

|                                                                     |             |        |                      |
|---------------------------------------------------------------------|-------------|--------|----------------------|
| Deflection Temperature Under Load Unannealed (0.45 MPa), (Flatwise) | 225         | °C     | ISO 75-2/B           |
| Deflection Temperature Under Load Unannealed (1.80 MPa), (Flatwise) | 90.0        | °C     | ISO 75-2/A           |
| <b>Electrical</b>                                                   |             |        |                      |
| Volume Resistivity                                                  | >1.0E+13    | ohm*m  | IEC 62631-3-1        |
| - Conditioned                                                       | 10000000000 | ohm*m  | IEC 62631-3-1        |
| Comparative Tracking Index (CTI)                                    | 600         | V      | IEC 60112            |
| Surface Resistivity                                                 | >1.0E+15    | ohm    | IEC 60093            |
| - Conditioned                                                       | 10000000000 | ohm    | IEC 60093            |
| <b>Flammable</b>                                                    |             |        |                      |
| Burning Rate                                                        |             |        |                      |
| (2.00 mm)                                                           | 0.0         | mm/min | ISO 3795             |
| (2.00 mm)                                                           | 0.0         | mm/min | FMVSS 302            |
| Glow Wire Flammability Index                                        | 600         | °C     | IEC 60695-2-12       |
| Glow Wire Ignition Temperature, (2.0 mm)                            | 675         | °C     | IEC 60695-2-13       |
| <b>UL Information</b>                                               |             |        |                      |
| Flammability Classification, (0.75 mm)                              | V-2         |        | IEC 60695-11-10, -20 |
| UL File Number                                                      | 86615       |        |                      |

| Injection Parameters   | Nominal Value | Units |
|------------------------|---------------|-------|
| Drying Time            | 3.0 to 4.0    | hr    |
| Drying Temperature     | 80            | °C    |
| Suggested Max Moisture | 0.040 to 0.10 | %     |
| Processing (Melt) Temp | 270 to 290    | °C    |
| Mold Temperature       | 60 to 100     | °C    |