

## Technical Data Sheet

# SCHULAMID<sup>®</sup> 66 CF 10 BLACK

Polyamide 66  
Engineering Plastics

### Product Description

10% carbon fiber reinforced Polyamide 66, available with different kinds of Heat Stabilizations Systems

### General

|                        |                                      |
|------------------------|--------------------------------------|
| Filler / Reinforcement | • Carbon Fiber, 10% Filler by Weight |
| Processing Method      | • Injection Molding                  |

| Physical                         | Dry                | Conditioned       | Unit  | Test Method    |
|----------------------------------|--------------------|-------------------|---|----------------|
| Density                          | 1.20               | --                | g/cm <sup>3</sup>                             | ISO 1183/A     |
| Molding Shrinkage                |                    |                   |   | ISO 294-4      |
| Across Flow                      | 1.1                | --                | %   |                |
| Flow                             | 0.40               | --                | %   |                |
| Viscosity Number                 | 145                | --                | cm <sup>3</sup> /g                            | ISO 307        |
| Mechanical                       | Dry                | Conditioned       | Unit  | Test Method    |
| Tensile Modulus                  | 1.74E+6<br>(12000) | 1.19E+6<br>(8200) | psi<br>(MPa)                                  | ISO 527-2/1A/1 |
| Tensile Stress (Break)           | 29000<br>(200)     | 19600<br>(135)    | psi<br>(MPa)                                  | ISO 527-2/1A/5 |
| Tensile Strain (Break)           | 3.0                | 5.8               | %   | ISO 527-2/1A/5 |
| Flexural Modulus <sup>1</sup>    | 1.74E+6<br>(12000) | --                | psi<br>(MPa)                                  | ISO 178        |
| Flexural Stress <sup>1</sup>     |                    |                   |   | ISO 178        |
| 3.7% Strain                      | 44200<br>(305)     | --                | psi<br>(MPa)                                  |                |
| 3.7% Strain <sup>2</sup>         | 43500<br>(300)     | --                | psi<br>(MPa)                                  |                |
| Impact                           | Dry                | Conditioned       | Unit  | Test Method    |
| Charpy Notched Impact Strength   |                    |                   |   | ISO 179/1eA    |
| -22°F (-30°C)                    | 1.7<br>(3.5)       | --                | ft·lb/in <sup>2</sup><br>(kJ/m <sup>2</sup> ) |                |
| 73°F (23°C)                      | 2.4<br>(5.0)       | 5.7<br>(12)       | ft·lb/in <sup>2</sup><br>(kJ/m <sup>2</sup> ) |                |
| Charpy Unnotched Impact Strength |                    |                   |   | ISO 179/1eU    |
| -22°F (-30°C)                    | 21<br>(45)         | --                | ft·lb/in <sup>2</sup><br>(kJ/m <sup>2</sup> ) |                |
| 73°F (23°C)                      | 31<br>(65)         | 43<br>(90)        | ft·lb/in <sup>2</sup><br>(kJ/m <sup>2</sup> ) |                |
| Thermal                          | Dry                | Conditioned       | Unit  | Test Method    |
| Heat Deflection Temperature      |                    |                   |   | ISO 75-2/af    |
| 264 psi (1.8 MPa), Unannealed    | 464<br>(240)       | --                | °F<br>(°C)                                    |                |
| Electrical                       | Dry                | Conditioned       | Unit  | Test Method    |
| Volume Resistivity               | 1.0E+2             | --                | ohms·m  | IEC 62631-3-1  |



Technical Data Sheet

# SCHULAMID<sup>®</sup> 66 CF 10 BLACK

Polyamide 66  
Engineering Plastics

| Flammability        | Dry              | Conditioned | Unit               | Test Method |
|---------------------|------------------|-------------|--------------------|-------------|
| Burning Rate        |                  |             |                    |             |
| 0.0787 in (2.00 mm) | < 3.9<br>(< 100) | --          | in/min<br>(mm/min) | ISO 3795    |
| 0.0787 in (2.00 mm) | < 3.9<br>(< 100) | --          | in/min<br>(mm/min) | FMVSS 302   |

Technical Data Sheet

# SCHULAMID® 66 CF 10 BLACK

Polyamide 66  
Engineering Plastics



| Injection              | Dry (English)  | Dry (SI)       |
|------------------------|----------------|----------------|
| Drying Temperature     | 176 °F         | 80 °C          |
| Drying Time            | 3.0 to 4.0 hr  | 3.0 to 4.0 hr  |
| Suggested Max Moisture | 0.04 to 0.10 % | 0.04 to 0.10 % |
| Suggested Max Regrind  | 20 %           | 20 %           |
| Processing (Melt) Temp | 500 to 572 °F  | 260 to 300 °C  |
| Mold Temperature       | 140 to 248 °F  | 60 to 120 °C   |

**Notes**

<sup>1</sup> 0.079 in/min (2.0 mm/min)

<sup>2</sup> at Break

**Notes**

These are typical property values not to be construed as specification limits.