

Technical Data Sheet

# Schulamid 6 GF 15 HI

Polyamide 6  
LyondellBasell Industries  
Engineering Plastics

## Product Description

15% glass fiber reinforced and impact modified Polyamide 6

## General

|                        |                                     |                          |  |
|------------------------|-------------------------------------|--------------------------|--|
| Filler / Reinforcement | • Glass Fiber, 15% Filler by Weight |                          |  |
| Features               | • Good Processability               | • High Impact Resistance |  |
|                        | • Good Toughness                    | • Oil Resistant          |  |
| Processing Method      | • Injection Molding                 |                          |  |
| Resin ID (ISO 1043)    | • PA6I-GF15                         |                          |  |

| Physical | Dry  | Conditioned | Unit              | Test Method |
|----------|------|-------------|-------------------|-------------|
| Density  | 1.20 | --          | g/cm <sup>3</sup> | ISO 1183/A  |

|                  |     |    |                    |         |
|------------------|-----|----|--------------------|---------|
| Viscosity Number | 145 | -- | cm <sup>3</sup> /g | ISO 307 |
|------------------|-----|----|--------------------|---------|

| Mechanical             | Dry              | Conditioned      | Unit         | Test Method    |
|------------------------|------------------|------------------|--------------|----------------|
| Tensile Modulus        | 725000<br>(5000) | 377000<br>(2600) | psi<br>(MPa) | ISO 527-1/1A/1 |
| Tensile Stress (Break) | 14500<br>(100)   | 8700<br>(60.0)   | psi<br>(MPa) | ISO 527-2/1A/5 |
| Tensile Strain (Break) | 5.0              | 15               | %            | ISO 527-2/1A/5 |

| Impact                           | Dry                                                 | Conditioned | Unit                                          | Test Method |
|----------------------------------|-----------------------------------------------------|-------------|-----------------------------------------------|-------------|
| Charpy Notched Impact Strength   |                                                     |             |                                               | ISO 179/1eA |
| -22°F (-30°C)                    | 3.3<br>(7.0)                                        | --          | ft·lb/in <sup>2</sup><br>(kJ/m <sup>2</sup> ) |             |
| 73°F (23°C)                      | 7.6<br>(16)                                         | 11<br>(24)  | ft·lb/in <sup>2</sup><br>(kJ/m <sup>2</sup> ) |             |
| Charpy Unnotched Impact Strength |                                                     |             |                                               | ISO 179/1eU |
| -22°F (-30°C)                    | 27<br>(56)                                          | --          | ft·lb/in <sup>2</sup><br>(kJ/m <sup>2</sup> ) |             |
| 73°F (23°C)                      | 33 ft·lb/in <sup>2</sup><br>(70 kJ/m <sup>2</sup> ) | No Break    | (kJ/m <sup>2</sup> )                          |             |

| Thermal                           | Dry          | Conditioned | Unit       | Test Method |
|-----------------------------------|--------------|-------------|------------|-------------|
| Deflection Temperature Under Load |              |             |            |             |
| 66 Psi (0.45 Mpa), Unannealed     | 410<br>(210) | --          | °F<br>(°C) | ISO 75-2/Bf |
| 264 Psi (1.8 Mpa), Unannealed     | 374<br>(190) | --          | °F<br>(°C) | ISO 75-2/Af |
| Vicat Softening Temperature       |              |             |            |             |
| --                                | 401<br>(205) | --          | °F<br>(°C) | ISO 306/B50 |
| --                                | 419<br>(215) | --          | °F<br>(°C) | ISO 306/A50 |

| Electrical          | Dry     | Conditioned | Unit   | Test Method   |
|---------------------|---------|-------------|--------|---------------|
| Surface Resistivity | 1.0E+15 | 1.0E+12     | ohms   | IEC 60093     |
| Volume Resistivity  | 1.0E+13 | 1.0E+10     | ohms·m | IEC 62631-3-1 |

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| Flammability                 | Dry           | Conditioned | Unit               | Test Method             |
|------------------------------|---------------|-------------|--------------------|-------------------------|
| Burning Rate                 |               |             |                    |                         |
| 0.0787 In (2.00 Mm)          | 2.0<br>(50)   | --          | in/min<br>(mm/min) | ISO 3795                |
| 0.0787 In (2.00 Mm)          | 2.0<br>(50)   | --          | in/min<br>(mm/min) | FMVSS 302               |
| Flammability Classification  |               |             |                    | IEC 60695-11-10,<br>-20 |
| 0.06 In (1.5 Mm)             | HB            | --          |                    |                         |
| 0.12 In (3.0 Mm)             | HB            | --          |                    |                         |
| Glow Wire Flammability Index |               |             |                    | IEC 60695-2-12          |
| 0.06 In (1.5 Mm)             | 1200<br>(650) | --          | °F<br>(°C)         |                         |
| 0.12 In (3.0 Mm)             | 1200<br>(650) | --          | °F<br>(°C)         |                         |

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| 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 % |
| Processing (Melt) Temp | 482 to 536 °F  | 250 to 280 °C  |
| Mold Temperature       | 140 to 212 °F  | 60 to 100 °C   |

### Notes

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