Technical Data Sheet

# RW *Schulamid* 6 GF 30 HI 31 BLACK

Polyamide 6

## Product Description

30% glass fiber reinforced high impact Polyamid 6

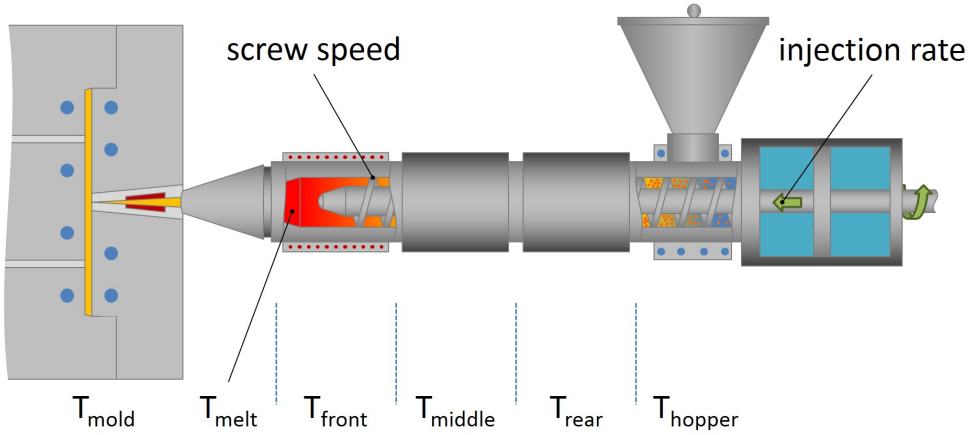
## Regulatory Status

For regulatory compliance information, see RW *Schulamid* 6 GF 30 HI 31 BLACK Product Stewardship Bulletin (PSB) and Safety Data Sheet (SDS).

| | |
|---|---|
| **Status** | Commercial: Active |
| **Availability** | Africa-Middle East; Asia-Pacific; Europe; Latin America; North America |
| **Processing Method** | Injection Molding |
| **Attribute** | Good Chemical Resistance; Good Flow; Good Toughness; High Impact Resistance; Oil Resistant |
| **Filler/Reinforcement** | Glass Fiber, 30% |
| **Resin ID** | PA6I GF30 |

| Typical Properties | Nominal Value | Units | Test Method |
|---|---|---|---|
| **Physical** | | | |
| Density, (Method A) | 1.28 | g/cm³ | ISO 1183 |
| **Mechanical** | | | |
| Tensile Strain at Break | | | |
| (Type 1A, 5 mm/min) | 5.0 | % | ISO 527-2 |
| (Type 1A, 5 mm/min) - Conditioned | 6.5 | % | ISO 527-2 |
| Tensile Stress at Break | | | |
| (Type 1A, 5 mm/min) | 135 | MPa | ISO 527-2 |
| (Type 1A, 5 mm/min) - Conditioned | 90.0 | MPa | ISO 527-2 |
| Tensile Modulus | | | |
| (1 mm/min, Type 1A) | 8000 | MPa | ISO 527-1 |
| (1 mm/min, Type 1A) - Conditioned | 4800 | MPa | ISO 527-1 |
| **Impact** | | | |
| Charpy Impact Strength - Notched | | | |
| (23 °C, Type 1, Edgewise, Notch A) | 22 | kJ/m² | ISO 179 |
| (-30 °C, Type 1, Edgewise, Notch A) | 14 | kJ/m² | ISO 179 |
| (23 °C, Type 1, Edgewise, Notch A) - Conditioned | 40 | kJ/m² | ISO 179 |
| Charpy Impact Strength - Unnotched | | | |
| (23 °C, Type 1, Edgewise) | 85 | kJ/m² | ISO 179 |
| (-30 °C, Type 1, Edgewise) | 80 | kJ/m² | ISO 179 |
| (23 °C, Type 1, Edgewise) - Conditioned | No Break | | ISO 179 |
| **Hardness** | | | |
| Ball Indentation Hardness | | | |
| (H 358/30) | 175 | MPa | ISO 2039-1 |
| (H 358/30) - Conditioned | 115 | MPa | ISO 2039-1 |
| **Thermal** | | | |

| | | | |
|---|---|---|---|
| Vicat Softening Temperature | | | |
| (B (50N), 50 °C/h) | 200 | °C | ISO 306 |
| (A (10N), 50 °C/h) | 210 | °C | ISO 306 |
| Deflection Temperature Under Load Unannealed (0.45 MPa), (Flatwise) | 200 | °C | ISO 75-2/B |
| Deflection Temperature Under Load Unannealed (1.80 MPa), (Flatwise) | 190 | °C | ISO 75-2/A |
| **Electrical** | | | |
| Volume Resistivity | >1.0E+13 | ohm*m | IEC 62631-3-1 |
| - Conditioned | >1.0E+10 | ohm*m | IEC 62631-3-1 |
| Comparative Tracking Index (CTI) | 550 | V | IEC 60112 |
| Surface Resistivity | >1.0E+15 | ohm | IEC 60093 |
| - Conditioned | >1.0E+12 | ohm | IEC 60093 |
| **Flammable** | | | |
| Burning Rate | | | |
| (2.00 mm) | 45 | mm/min | FMVSS 302 |
| (2.00 mm) | 45 | mm/min | ISO 3795 |
| **Additional Information** | | | |
| Water Absorption 23C/50RH | 1.9 | % | ISO 62 |
| **UL Information** | | | |
| Flammability Classification | | | |
| (1.5 mm) | HB | | IEC 60695-11-10, -20 |
| (3.0 mm) | HB | | IEC 60695-11-10, -20 |




| 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 | 250 to 280 | °C |
| Mold Temperature | 60 to 100 | °C |

## Notes

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

## Processing Techniques

Specific recommendations for resin type and processing conditions can only be made when the end use, required properties and fabrication equipment are known.

## Company Information

For further information regarding the LyondellBasell company, please visit http://www.lyb.com/.



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