

# Schulamid 66 GBF 3020

Polyamide 66  
LyondellBasell Industries  
Engineering Plastics

## Product Description

30% glass fiber and glass bead reinforced Polyamide 66 with high tensile strength and dimensional stability

## General

|                        |                                                                             |
|------------------------|-----------------------------------------------------------------------------|
| Filler / Reinforcement | • Glass Bead\Glass Fiber, 30% Filler by Weight                              |
| Features               | • Balanced Stiffness/Toughness • Low Warpage<br>• Good Flow • Oil Resistant |
| Processing Method      | • Injection Molding                                                         |

| Physical                         | Dry  | Conditioned | Unit               | Test Method |
|----------------------------------|------|-------------|--------------------|-------------|
| Density                          | 1.35 | --          | g/cm <sup>3</sup>  | ISO 1183/A  |
| Water Absorption                 |      |             |                    | ISO 62      |
| Equilibrium, 73°F (23°C), 50% Rh | 2.0  | --          | %                  |             |
| Viscosity Number                 | 145  | --          | cm <sup>3</sup> /g | ISO 307     |

| Mechanical                           | Dry               | Conditioned      | Unit         | Test Method    |
|--------------------------------------|-------------------|------------------|--------------|----------------|
| Tensile Modulus                      | 1.10E+6<br>(7600) | 638000<br>(4400) | psi<br>(MPa) | ISO 527-1/1A/1 |
| Tensile Stress (Break)               | 18900<br>(130)    | 11600<br>(80.0)  | psi<br>(MPa) | ISO 527-2/1A/5 |
| Tensile Strain (Break)               | 3.0               | 10               | %            | ISO 527-2/1A/5 |
| Flexural Modulus <sup>1</sup>        | 870000<br>(6000)  | --               | psi<br>(MPa) | ISO 178        |
| Flexural Stress <sup>1</sup>         | 27600<br>(190)    | --               | psi<br>(MPa) | ISO 178        |
| Flexural Strain at Flexural Strength | 4.5               | --               | %            | ISO 178        |

| Impact                           | Dry          | Conditioned | Unit                                          | Test Method |
|----------------------------------|--------------|-------------|-----------------------------------------------|-------------|
| Charpy Notched Impact Strength   |              |             |                                               | ISO 179/1eA |
| -22°F (-30°C)                    | 2.9<br>(6.0) | --          | ft·lb/in <sup>2</sup><br>(kJ/m <sup>2</sup> ) |             |
| 73°F (23°C)                      | 6.7<br>(14)  | 8.6<br>(18) | ft·lb/in <sup>2</sup><br>(kJ/m <sup>2</sup> ) |             |
| Charpy Unnotched Impact Strength |              |             |                                               | ISO 179/1eU |
| -22°F (-30°C)                    | 17<br>(35)   | --          | ft·lb/in <sup>2</sup><br>(kJ/m <sup>2</sup> ) |             |
| 73°F (23°C)                      | 19<br>(40)   | 29<br>(60)  | ft·lb/in <sup>2</sup><br>(kJ/m <sup>2</sup> ) |             |

| Hardness                             | Dry            | Conditioned    | Unit         | Test Method |
|--------------------------------------|----------------|----------------|--------------|-------------|
| Ball Indentation Hardness (H 358/30) | 31900<br>(220) | 20300<br>(140) | psi<br>(MPa) | ISO 2039-1  |



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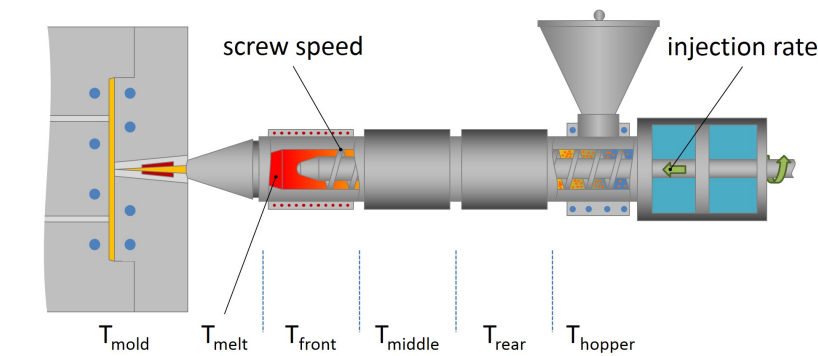
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| Thermal                            | Dry              | Conditioned | Unit               | Test Method             |
|------------------------------------|------------------|-------------|--------------------|-------------------------|
| Deflection Temperature Under Load  |                  |             |                    |                         |
| 66 Psi (0.45 Mpa), Unannealed      | 473<br>(245)     | --          | °F<br>(°C)         | ISO 75-2/Bf             |
| 264 Psi (1.8 Mpa), Unannealed      | 473<br>(245)     | --          | °F<br>(°C)         | ISO 75-2/Af             |
| Vicat Softening Temperature        |                  |             |                    |                         |
| --                                 | 455<br>(235)     | --          | °F<br>(°C)         | ISO 306/B50             |
| --                                 | 464<br>(240)     | --          | °F<br>(°C)         | ISO 306/A50             |
| Ball Pressure Test (284°F (140°C)) | Pass             | --          |                    | IEC 60695-10-2          |
| 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           |
| Comparative Tracking Index         | 450              | --          | V                  | IEC 60112               |
| 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               |
| 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 | 536 to 572 °F  | 280 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)

Notes

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

