

Technical Data Sheet

## Schulamid 612 GF 33 H2

Polyamide 612  
LyondellBasell Industries  
Engineering Plastics

### Product Description

33% glass fiber reinforced, Polyamide 612 Compound, with electrical neutral heat stabilization and high strength after conditioning

### General

|                        |                                     |                |                        |
|------------------------|-------------------------------------|----------------|------------------------|
| Filler / Reinforcement | • Glass Fiber, 33% Filler by Weight |                |                        |
| Features               | • Chemical Resistant                | • Halogen Free | • Heat Aging Resistant |
| Processing Method      | • Injection Molding                 |                |                        |

| Physical                                   | Dry  | Conditioned | Unit                   | Test Method |
|--------------------------------------------|------|-------------|------------------------|-------------|
| Density                                    | 1.32 | --          | g/cm <sup>3</sup>      | ISO 1183/A  |
| Melt Volume-Flow Rate (MVR) (245°C/5.0 Kg) | 32   | --          | cm <sup>3</sup> /10min | ISO 1133    |
| Water Absorption                           |      |             |                        | ISO 62      |
| Equilibrium, 73°F (23°C), 50% Rh           | 0.90 | --          | %                      |             |

| Mechanical                                  | Dry                | Conditioned       | Unit         | Test Method    |
|---------------------------------------------|--------------------|-------------------|--------------|----------------|
| Tensile Modulus                             | 1.45E+6<br>(10000) | 1.16E+6<br>(8000) | psi<br>(MPa) | ISO 527-1/1A/1 |
| Tensile Stress (Break)                      | 25400<br>(175)     | 19600<br>(135)    | psi<br>(MPa) | ISO 527-2/1A/5 |
| Tensile Strain (Break)                      | 3.2                | 4.4               | %            | ISO 527-2/1A/5 |
| Flexural Modulus <sup>1</sup> (73°F (23°C)) | 1.31E+6<br>(9000)  | --                | psi<br>(MPa) | ISO 178        |
| Flexural Stress <sup>1</sup>                |                    |                   |              | ISO 178        |
| 3.5% Strain                                 | 36300<br>(250)     | --                | psi<br>(MPa) |                |
| 3.7% Strain <sup>2</sup>                    | 36300<br>(250)     | --                | psi<br>(MPa) |                |
| 3.7% Strain, 73°F (23°C)                    | 37000<br>(255)     | --                | psi<br>(MPa) |                |

| Impact                                       | Dry         | Conditioned | Unit                                          | Test Method |
|----------------------------------------------|-------------|-------------|-----------------------------------------------|-------------|
| Charpy Notched Impact Strength (73°F (23°C)) | 7.1<br>(15) | 7.1<br>(15) | ft·lb/in <sup>2</sup><br>(kJ/m <sup>2</sup> ) | ISO 179/1eA |
| Charpy Unnotched Impact Strength             |             |             |                                               | ISO 179/1eU |
| 73°F (23°C)                                  | 43<br>(90)  | 40<br>(85)  | ft·lb/in <sup>2</sup><br>(kJ/m <sup>2</sup> ) |             |

| Thermal                           | Dry          | Conditioned | Unit       | Test Method |
|-----------------------------------|--------------|-------------|------------|-------------|
| Deflection Temperature Under Load |              |             |            |             |
| 66 Psi (0.45 Mpa), Unannealed     | 417<br>(214) | --          | °F<br>(°C) | ISO 75-2/Bf |
| 264 Psi (1.8 Mpa), Unannealed     | 383<br>(195) | --          | °F<br>(°C) | ISO 75-2/Af |

| 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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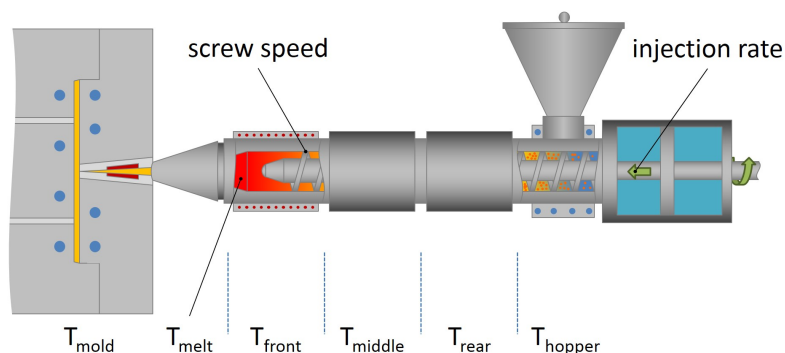
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| Flammability                | Dry              | Conditioned | Unit               | Test Method             |
|-----------------------------|------------------|-------------|--------------------|-------------------------|
| Burning Rate                |                  |             |                    |                         |
| 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               | --          |                    |                         |

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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 | 464 to 536 °F  | 240 to 280 °C  |
| Mold Temperature       | 122 to 194 °F  | 50 to 90 °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.