

Technical Data Sheet

Schulamid 612 GF 33

Polyamide 612
LyondellBasell Industries
Engineering Plastics

Product Description

33% glass fiber reinforced, Polyamide 612 compound

General

- | | |
|------------------------|-------------------------------------|
| Filler / Reinforcement | • Glass Fiber, 33% Filler by Weight |
| Processing Method | • Injection Molding |

| Physical | Dry | Conditioned | Unit | Test Method |
|---|--------------------|-------------------|---|----------------|
| Density | 1.34 | -- | g/cm ³ | ISO 1183/A |
| Water Absorption | | | | ISO 62 |
| Equilibrium, 73°F (23°C), 50% Rh | 1.3 | -- | % | |
| Mechanical | Dry | Conditioned | Unit | Test Method |
| Tensile Modulus | 1.45E+6 (10000) | 1.17E+6 (8050) | psi (MPa) | ISO 527-1/1A/1 |
| Tensile Stress (Break) | 23900 (165) | 17700 (122) | psi (MPa) | ISO 527-2/1A/5 |
| Tensile Strain (Break) | 2.6 | 4.3 | % | ISO 527-2/1A/5 |
| Flexural Modulus ¹ (73°F (23°C)) | 1.26E+6 (8700) | -- | psi (MPa) | ISO 178 |
| Flexural Stress ¹ (73°F (23°C)) | 34100 (235) | -- | psi (MPa) | ISO 178 |
| Flexural Strain at Flexural Strength | | | | ISO 178 |
| 73°F (23°C) | 3.40 | -- | | |
| Impact | Dry | Conditioned | Unit | Test Method |
| Charpy Notched Impact Strength | | | | ISO 179/1eA |
| -40°F (-40°C) | 3.8 (8.0) | -- | ft·lb/in ² (kJ/m ²) | |
| -22°F (-30°C) | 3.8 (8.0) | -- | ft·lb/in ² (kJ/m ²) | |
| 73°F (23°C) | 4.3 (9.0) | 4.8 (10) | ft·lb/in ² (kJ/m ²) | |
| Charpy Unnotched Impact Strength | | | | ISO 179/1eU |
| -40°F (-40°C) | 24 (50) | -- | ft·lb/in ² (kJ/m ²) | |
| -22°F (-30°C) | 26 (55) | -- | ft·lb/in ² (kJ/m ²) | |
| 73°F (23°C) | 29 (60) | 33 (70) | ft·lb/in ² (kJ/m ²) | |

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| Thermal | Dry | Conditioned | Unit | Test Method |
|------------------------------------|------------------|-------------|--------------------|----------------------------------|
| Deflection Temperature Under Load | | | | |
| 66 Psi (0.45 Mpa), Unannealed | 421 (216) | -- | °F (°C) | ISO 75-2/Bf |
| 264 Psi (1.8 Mpa), Unannealed | 390 (199) | -- | °F (°C) | ISO 75-2/Af |
| Vicat Softening Temperature | | | | |
| -- | 408 (209) | -- | °F (°C) | ISO 306/B50 |
| -- | 417 (214) | -- | °F (°C) | ISO 306/A50 |
| Flammability | Dry | Conditioned | Unit | Test Method |
| Burning Rate (0.0787 In (2.00 Mm)) | < 3.9 (< 100) | -- | in/min (mm/min) | ISO 3795 |
| Flame Rating | | | | |
| 0.06 In (1.6 Mm) | HB | -- | | UL 94 IEC 60695-11-10, -20 |
| 0.13 In (3.2 Mm) | HB | -- | | |
| Glow Wire Flammability Index | | | | |
| 0.06 In (1.5 Mm) | 1250 (675) | -- | °F (°C) | IEC 60695-2-12 |
| 0.12 In (3.0 Mm) | 1290 (700) | -- | °F (°C) | |
| Glow Wire Ignition Temperature | | | | |
| 0.06 In (1.5 Mm) | 1290 (700) | -- | °F (°C) | IEC 60695-2-13 |
| 0.12 In (3.0 Mm) | 1340 (725) | -- | °F (°C) | |

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| Injection | Dry (English) | Dry (SI) |
|------------------------|---------------|---------------|
| Processing (Melt) Temp | 464 to 536 °F | 240 to 280 °C |
| Mold Temperature | 176 to 230 °F | 80 to 110 °C |

Notes

¹ 0.079 in/min (2.0 mm/min)

Notes

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