# LEONA™ 14G25

**Asahi Kasei Corporation - *Polyamide 66***

## General Information

| General | | |
|---|---|---|
| Material Status | • Commercial: Active | |
| Availability | • Africa & Middle East<br>• Asia Pacific | • Europe<br>• North America |
| Filler / Reinforcement | • Glass Fiber, 25% Filler by Weight | |
| Additive | • Heat Stabilizer | |
| Features | • Heat Stabilized | |
| Uses | • Automotive Applications<br>• Automotive Under the Hood | • Electrical/Electronic Applications<br>• Structural Parts |
| Automotive Specifications | • GM GMW3038P-PA66-GF25H Color: Black<br>• GM GMW3038P-PA66-GF25H Color: Natural | • GM GMW3038P-PA66-GF25J Color: Black<br>• GM GMW3038P-PA66-GF25J Color: Natural |
| Part Marking Code (ISO 11469) | • >PA66-GF25< | |

## Properties [1]

| Physical | Dry | Conditioned | Unit | Test Method |
|---|---|---|---|---|
| Density / Specific Gravity | 1.32 | -- | | ASTM D792 |
| Density | 1.32 | -- | g/cm³ | ISO 1183 |
| Molding Shrinkage | | | | Internal Method |
| Across Flow | 0.90 | -- | % | |
| Flow | 0.50 | -- | % | |
| Water Absorption (Equilibrium, 73°F, 50% RH) | -- | 1.9 | % | ISO 62 |
| **Mechanical** | **Dry** | **Conditioned** | **Unit** | **Test Method** |
| Tensile Modulus (73°F) | 1.19E+6 | 856000 | psi | ISO 527-1 |
| Tensile Strength | 26100 | 16000 | psi | ASTM D638 |
| Tensile Stress (Yield, 73°F) | -- | 16800 | psi | ISO 527-2 |
| Tensile Stress (Break, 73°F) | 27600 | 16200 | psi | ISO 527-2 |
| Tensile Strain (Yield, 73°F) | -- | 5.5 | % | ISO 527-2 |
| Tensile Elongation (Break) | 3.0 | 6.0 | % | ASTM D638 |
| Tensile Strain (Break, 73°F) | 4.0 | 9.0 | % | ISO 527-2 |
| Flexural Modulus | 1.17E+6 | 682000 | psi | ASTM D790 |
| Flexural Modulus (73°F) | 1.13E+6 | 725000 | psi | ISO 178 |
| Flexural Strength | 42100 | 25400 | psi | ASTM D790 |
| Flexural Stress (73°F) | 39900 | 24700 | psi | ISO 178 |
| Taber Abrasion Resistance (1000 Cycles) | -- | 12.0 | mg | ASTM D1044 |
| **Impact** | **Dry** | **Conditioned** | **Unit** | **Test Method** |
| Charpy Notched Impact Strength | 4.8 | 6.7 | ft·lb/in² | ISO 179 |
| Charpy Unnotched Impact Strength | 32 | 44 | ft·lb/in² | ISO 179 |
| Notched Izod Impact | 2.0 | 3.0 | ft·lb/in | ASTM D256 |
| **Hardness** | **Dry** | **Conditioned** | **Unit** | **Test Method** |
| Rockwell Hardness | | | | ASTM D785 |
| M-Scale | 96 | 74 | | |
| R-Scale | 120 | -- | | |
| Rockwell Hardness | | | | ISO 2039-2 |
| M-Scale | 96 | 74 | | |
| R-Scale | 120 | -- | | |

| Thermal | Dry | Conditioned | Unit | Test Method |
|---|---|---|---|---|
| Deflection Temperature Under Load (66 psi, Unannealed) | 500 | -- | °F | ASTM D648 |
| Deflection Temperature Under Load (66 psi, Unannealed) | 500 | -- | °F | ISO 75-2/B |
| Deflection Temperature Under Load (264 psi, Unannealed) | 482 | -- | °F | ASTM D648 |
| Deflection Temperature Under Load (264 psi, Unannealed) | 473 | -- | °F | ISO 75-2/A |
| CLTE - Flow | 1.7E-5 | -- | in/in/°F | ASTM D696 |
| Thermal Conductivity | 2.1 | -- | Btu·in/hr/ft²/°F | |
| **Electrical** | **Dry** | **Conditioned** | **Unit** | **Test Method** |
| Surface Resistivity | 1.0E+15 | -- | ohms | ASTM D257 |
| Surface Resistivity | 1.0E+15 | -- | ohms | IEC 60093 |
| Volume Resistivity | 1.0E+15 | -- | ohms·cm | ASTM D257 |
| Volume Resistivity (73°F) | 1.0E+15 | -- | ohms·cm | IEC 60093 |
| Dielectric Strength | 740 | -- | V/mil | ASTM D149 |
| Electric Strength | 740 | -- | V/mil | IEC 60243-1 |
| Comparative Tracking Index (0.118 in) | 425 | -- | V | IEC 60112 |
| **Flammability** | **Dry** | **Conditioned** | **Unit** | **Test Method** |
| Flame Rating (0.030 in) | HB | -- | | UL 94 |

## Processing Information

| Injection | Dry | Unit |
|---|---|---|
| Drying Temperature - Vacuum Dryer | 176 to 194 | °F |
| Drying Time - Vacuum Dryer | 2.0 to 3.0 | hr |
| Processing (Melt) Temp | 527 to 563 | °F |
| Mold Temperature | 167 to 185 | °F |

## Notes

[1] Typical properties: these are not to be construed as specifications.