

# Lucet® GC-225

Acetal (POM) Copolymer

LG Chem Ltd.

## Message:

Lucet® GC-225 is an Acetal (POM) Copolymer material filled with 25% glass fiber. It is available in North America for injection molding.

Important attributes of Lucet® GC-225 are:

Flame Rated

Chemical Resistant

Copolymer

Creep Resistant

Good Dimensional Stability

| General Information         |                                  |       |             |
|-----------------------------|----------------------------------|-------|-------------|
| UL YellowCard               | E67171-248287                    |       |             |
| Filler / Reinforcement      | Glass Fiber,25% Filler by Weight |       |             |
| Features                    | Copolymer                        |       |             |
|                             | Good Abrasion Resistance         |       |             |
|                             | Good Chemical Resistance         |       |             |
|                             | Good Creep Resistance            |       |             |
|                             | Good Dimensional Stability       |       |             |
|                             | Good Moldability                 |       |             |
|                             | Good Thermal Stability           |       |             |
|                             | High Strength                    |       |             |
| Forms                       | Pellets                          |       |             |
| Processing Method           | Injection Molding                |       |             |
| Physical                    | Nominal Value                    | Unit  | Test Method |
| Specific Gravity            | 1.59                             | g/cm³ | ASTM D792   |
| Molding Shrinkage - Flow    | 0.45 to 0.85                     | %     | ASTM D955   |
| Water Absorption (24 hr)    | 0.19                             | %     | ASTM D570   |
| Hardness                    | Nominal Value                    | Unit  | Test Method |
| Rockwell Hardness (M-Scale) | 97                               |       | ASTM D785   |
| Mechanical                  | Nominal Value                    | Unit  | Test Method |
| Tensile Strength (Yield)    | 127                              | MPa   | ASTM D638   |
| Tensile Elongation (Break)  | 3.0                              | %     | ASTM D638   |
| Flexural Modulus            | 7640                             | MPa   | ASTM D790   |
| Flexural Strength (Yield)   | 196                              | MPa   | ASTM D790   |
| Impact                      | Nominal Value                    | Unit  | Test Method |
| Notched Izod Impact         |                                  |       | ASTM D256   |
| -40°C                       | 78                               | J/m   |             |
| 23°C                        | 88                               | J/m   |             |
| Thermal                     | Nominal Value                    | Unit  | Test Method |

|                                   |               |          |             |
|-----------------------------------|---------------|----------|-------------|
| Deflection Temperature Under Load |               |          | ASTM D648   |
| 0.45 MPa, Unannealed              | 166           | °C       |             |
| 1.8 MPa, Unannealed               | 163           | °C       |             |
| CLTE - Flow                       | 5.0E-5        | cm/cm/°C | ASTM D696   |
| Electrical                        | Nominal Value | Unit     | Test Method |
| Surface Resistivity               | 1.0E+16       | ohms     | ASTM D257   |
| Volume Resistivity                | 1.0E+14       | ohms·cm  | ASTM D257   |
| Dielectric Strength               | 23            | kV/mm    | ASTM D149   |
| Arc Resistance (3.18 mm)          | 125           | sec      | ASTM D495   |
| Flammability                      | Nominal Value | Unit     | Test Method |
| Flame Rating (0.794 mm)           | HB            |          | UL 94       |
| Injection                         | Nominal Value | Unit     |             |
| Drying Temperature                | 80.0 to 100   | °C       |             |
| Drying Time                       | 3.0 to 6.0    | hr       |             |
| Rear Temperature                  | 170 to 190    | °C       |             |
| Middle Temperature                | 190 to 210    | °C       |             |
| Front Temperature                 | 200 to 225    | °C       |             |
| Nozzle Temperature                | 200 to 225    | °C       |             |
| Processing (Melt) Temp            | 210 to 220    | °C       |             |
| Mold Temperature                  | 60.0 to 80.0  | °C       |             |
| Injection Pressure                | 68.6 to 118   | MPa      |             |
| Back Pressure                     | 0.00 to 3.92  | MPa      |             |
| Screw Speed                       | 40 to 75      | rpm      |             |

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