

Product Description

Polyamide 66 – MoS₂ Filled grade

Product Applications

Automotive: Engine related Parts, Powertrain, Electrical components and connectors

Electrical & Electronic: Low voltage switch gear/power distribution, Lighting, Power connectors, MCCB,

General

| | |
|----------------------|--------------------------------------|
| Material Status | • Commercial : Active |
| Filler/Reinforcement | • MoS ₂ filled |
| Forms | • Pellets |
| Additive | • Mold Release |
| RoHS Compliance | • ROHS compliant |
| Appearance/Color | • Dark Grey (MoS ₂ color) |
| Processing Method | • Injection molding |

| Physical | Typical Value | Unit | Test Method |
|--------------------------|---------------|------|-------------|
| Specific Gravity | 1.15 | | ASTM D792 |
| Water Absorption | | | |
| Saturation, 23°C | 1.5 | % | ISO 62 |
| Equilibrium, 23°C, 50%RH | 0.7 | % | |

| Mechanical | Typical Value | Unit | Test Method |
|-------------------------|---------------|------|-------------|
| Tensile Stress at Yield | 90 | MPa | ASTM D638 |
| Elongation at break | 5.0 | % | ASTM D638 |
| Tensile Modulus | 3700 | MPa | ASTM D638 |
| Flexural Strength | 130 | MPa | ASTM D790 |
| IZOD Impact Strength | | | |
| Notch | 40 | J/m | ASTM D256 |
| Unnotch | 60%NB | J/m | |

| Thermal | Typical Value | Unit | Test Method |
|-----------------------------|---------------|------|-------------|
| Heat Deflection Temperature | | | |
| 0.45 MPa Unannealed | 195 | °C | ASTM D648 |
| 1.8 MPa Unannealed | 69 | °C | ASTM D648 |

| Electrical | Typical Value | Unit | Test Method |
|--------------------------|------------------|--------|-------------|
| Volume Resistivity | 10 ¹³ | Ohm cm | IEC 60093 |
| Surface Resistivity, ROA | 10 ¹³ | Ohm | IEC 60093 |



Injection Molding – XU6900GY42

Drying Conditions

| Drying Time(hour) | Temperature | Remarks |
|-------------------|-------------|--|
| 3-4 | 80-85°C | Increase Temperature 10-20 °C or Drying time 1-2 hrs if required. Moisture content after drying should be <0.2% Avoid sudden cooling of dry pellet |

Injection Molding Temperatures (°C)

| Mold | Melt | Nozzle | Centre | Feed zone |
|---------|-----------|----------|----------|-----------|
| 60 – 80 | 275 – 285 | 280 -285 | 270 -280 | 265-275 |

Physical form and storage

ESTOPLAST XU is supplied in pellet form. It should be pre-dried as per the guideline mentioned above prior to molding. Standard packing size is 25kg. In order to prevent moisture pick up and contamination, supplied packaging should be kept closed and undamaged.

Product Safety

ESTOPLAST XU is thermally stable up to 350°C and does not give rise to hazardous material due to degradation or evolution of gases and vapors. ESTOPLAST XU decomposes above 380°C and gives carbon dioxide and water on charring.

For more information on safety, refer individual product MSDS. Available on request.

Note

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