

**ARLEN™ AE2230**

Mitsui Chemicals America, Inc. - *Polyamide 6T*
**General Information**

| <b>General</b>         |                                     |
|------------------------|-------------------------------------|
| Material Status        | • Commercial: Active                |
| Availability           | • North America                     |
| Filler / Reinforcement | • Glass Fiber, 30% Filler by Weight |
| Forms                  | • Pellets                           |

**Properties <sup>1</sup>**

| <b>Physical</b>                                         | <b>Dry</b> | <b>Conditioned</b> | <b>Unit</b> | <b>Test Method</b> |
|---------------------------------------------------------|------------|--------------------|-------------|--------------------|
| Density / Specific Gravity                              | 1.37       | --                 |             | ASTM D792          |
| Molding Shrinkage - Flow (0.0787 in)                    | 4.0E-3     | --                 | in/in       | ASTM D955          |
| Molding Shrinkage - Across Flow (0.0787 in)             | 7.0E-3     | --                 | in/in       | ASTM D955          |
| Water Absorption                                        |            |                    |             | ASTM D570          |
| 24 hr, 73°F                                             | 0.20       | --                 | %           |                    |
| 24 hr, 212°F                                            | 1.7        | --                 | %           |                    |
| <b>Mechanical</b>                                       | <b>Dry</b> | <b>Conditioned</b> | <b>Unit</b> | <b>Test Method</b> |
| Tensile Strength                                        | 29000      | 26100              | psi         | ASTM D638          |
| Tensile Elongation (Break)                              | 4.0        | 4.0                | %           | ASTM D638          |
| Flexural Modulus                                        | 1.31E+6    | 1.16E+6            | psi         | ASTM D790          |
| Flexural Strength                                       | 39200      | 34800              | psi         | ASTM D790          |
| <b>Impact</b>                                           | <b>Dry</b> | <b>Conditioned</b> | <b>Unit</b> | <b>Test Method</b> |
| Notched Izod Impact                                     | 1.9        | 2.1                | ft·lb/in    | ASTM D256          |
| <b>Hardness</b>                                         | <b>Dry</b> | <b>Conditioned</b> | <b>Unit</b> | <b>Test Method</b> |
| Rockwell Hardness (M-Scale)                             | 95         | --                 |             | ASTM D785          |
| <b>Thermal</b>                                          | <b>Dry</b> | <b>Conditioned</b> | <b>Unit</b> | <b>Test Method</b> |
| Deflection Temperature Under Load (264 psi, Unannealed) | 572        | --                 | °F          | ASTM D648          |
| Glass Transition Temperature                            | 257        | --                 | °F          | DSC                |
| Melting Temperature                                     | 608        | --                 | °F          |                    |
| CLTE - Flow                                             | 1.4E-5     | --                 | in/in/°F    | ASTM D696          |
| CLTE - Transverse                                       | 3.3E-5     | --                 | in/in/°F    | ASTM D696          |
| <b>Electrical</b>                                       | <b>Dry</b> | <b>Conditioned</b> | <b>Unit</b> | <b>Test Method</b> |
| Volume Resistivity                                      | 1.0E+16    | --                 | ohms·cm     | ASTM D257          |
| Dielectric Strength                                     | 690        | --                 | V/mil       | ASTM D149          |
| Dielectric Constant (1 MHz)                             | 3.70       | --                 |             | ASTM D150          |
| Dissipation Factor (1 MHz)                              | 0.018      | --                 |             | ASTM D150          |
| <b>Flammability</b>                                     | <b>Dry</b> | <b>Conditioned</b> | <b>Unit</b> | <b>Test Method</b> |
| Flame Rating                                            | HB         | --                 |             | UL 94              |

**Processing Information**

| <b>Injection</b>   | <b>Dry Unit</b> |
|--------------------|-----------------|
| Drying Temperature | 230 °F          |
| Drying Time        | 2.0 to 6.0 hr   |
| Hopper Temperature | 122 to 194 °F   |
| Rear Temperature   | 599 to 626 °F   |
| Middle Temperature | 608 to 635 °F   |
| Front Temperature  | 617 to 644 °F   |
| Nozzle Temperature | 617 to 644 °F   |
| Mold Temperature   | 194 to 284 °F   |
| Injection Rate     | Moderate        |



|                                     |         |
|-------------------------------------|---------|
| Screw Speed                         | 150 rpm |
| <b>Injection Notes</b>              |         |
| Injection Pressure: Medium Pressure |         |

Notes

<sup>1</sup> Typical properties: these are not to be construed as specifications.

