

**ARLEN™ CH230N**

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

| General                |                                      |
|------------------------|--------------------------------------|
| Material Status        | • Commercial: Active                 |
| Availability           | • North America                      |
| Filler / Reinforcement | • Glass Fiber, 30% Filler by Weight  |
| Features               | • Flame Retardant                    |
| Uses                   | • Electrical/Electronic Applications |
| Forms                  | • Pellets                            |

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

| Physical                                                | Dry     | Conditioned | Unit     | Test Method |
|---------------------------------------------------------|---------|-------------|----------|-------------|
| Density / Specific Gravity                              | 1.63    | --          |          | ASTM D792   |
| Molding Shrinkage - Flow (0.0787 in)                    | 4.0E-3  | --          | in/in    | ASTM D955   |
| Molding Shrinkage - Across Flow (0.0787 in)             | 8.0E-3  | --          | in/in    | ASTM D955   |
| Water Absorption                                        |         |             |          | ASTM D570   |
| 24 hr, 73°F                                             | 0.30    | --          | %        |             |
| 24 hr, 212°F                                            | 3.0     | --          | %        |             |
| Mechanical                                              | Dry     | Conditioned | Unit     | Test Method |
| Tensile Strength                                        | 23200   | 20300       | psi      | ASTM D638   |
| Tensile Elongation (Break)                              | 4.0     | 3.0         | %        | ASTM D638   |
| Flexural Modulus                                        | 1.60E+6 | 1.16E+6     | psi      | ASTM D790   |
| Flexural Strength                                       | 34800   | 29000       | psi      | ASTM D790   |
| Impact                                                  | Dry     | Conditioned | Unit     | Test Method |
| Notched Izod Impact                                     | 1.5     | 1.7         | ft·lb/in | ASTM D256   |
| Hardness                                                | Dry     | Conditioned | Unit     | Test Method |
| Rockwell Hardness (M-Scale)                             | 95      | --          |          | ASTM D785   |
| Thermal                                                 | Dry     | Conditioned | Unit     | Test Method |
| Deflection Temperature Under Load (264 psi, Unannealed) | 554     | --          | °F       | ASTM D648   |
| Glass Transition Temperature                            | 185     | --          | °F       | DSC         |
| Melting Temperature                                     | 590     | --          | °F       |             |
| CLTE - Flow                                             | 1.7E-5  | --          | in/in/°F | ASTM D696   |
| CLTE - Transverse                                       | 3.3E-5  | --          | in/in/°F | ASTM D696   |
| Electrical                                              | Dry     | Conditioned | Unit     | Test Method |
| Volume Resistivity                                      | 1.0E+15 | --          | ohms·cm  | ASTM D257   |
| Dielectric Strength                                     | 640     | --          | V/mil    | ASTM D149   |
| Dielectric Constant (1 MHz)                             | 4.00    | --          |          | ASTM D150   |
| Dissipation Factor (1 MHz)                              | 0.013   | --          |          | ASTM D150   |
| Flammability                                            | Dry     | Conditioned | Unit     | Test Method |
| Flame Rating                                            | V-0     | --          |          | UL 94       |

**Processing Information**

| Injection          | Dry Unit      |
|--------------------|---------------|
| Drying Temperature | 230 °F        |
| Drying Time        | 2.0 to 6.0 hr |
| Hopper Temperature | 122 to 194 °F |
| Rear Temperature   | 572 to 617 °F |
| Middle Temperature | 599 to 635 °F |
| Front Temperature  | 608 to 635 °F |
| Nozzle Temperature | 599 to 635 °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.

