

# AIE PA6 50G6ST

Polyamide 6

Asia International Enterprise (Hong Kong) Limited

Message:

AIE PA6 50G6ST is a polyamide 6 (nylon 6) material, which contains a filler of 30% glass fabric reinforcement. This product is available in North America, Africa and the Middle East, Latin America, Europe or Asia Pacific. The processing method is injection molding.

The main features of AIE PA6 50G6ST are:

flame retardant/rated flame

Hard

Good dimensional stability

| General Information            |                                                  |                   |                 |
|--------------------------------|--------------------------------------------------|-------------------|-----------------|
| Filler / Reinforcement         | Glass fabric reinforcement, 30% filler by weight |                   |                 |
| Features                       | Good dimensional stability                       |                   |                 |
|                                | Rigidity, high                                   |                   |                 |
| Forms                          | Particle                                         |                   |                 |
| Processing Method              | Injection molding                                |                   |                 |
| Physical                       | Nominal Value                                    | Unit              | Test Method     |
| Density                        | 1.29                                             | g/cm <sup>3</sup> | ISO 1183        |
| Molding Shrinkage              | 0.40 - 0.80                                      | %                 | Internal method |
| Water Absorption (23°C, 24 hr) | 1.2                                              | %                 | ISO 62          |
| Mechanical                     | Nominal Value                                    | Unit              | Test Method     |
| Tensile Stress (Yield)         | 145                                              | MPa               | ISO 527-2       |
| Tensile Strain (Break)         | 7.0                                              | %                 | ISO 527-2       |
| Flexural Modulus               | 5000                                             | MPa               | ISO 178         |
| Flexural Stress                | 175                                              | MPa               | ISO 178         |
| Impact                         | Nominal Value                                    | Unit              | Test Method     |
| Notched Izod Impact (23°C)     | 34                                               | kJ/m <sup>2</sup> | ISO 180         |
| Thermal                        | Nominal Value                                    | Unit              | Test Method     |
| Heat Deflection Temperature    |                                                  |                   |                 |
| 0.45 MPa, not annealed         | 220                                              | °C                | ISO 75-2/B      |
| 1.8 MPa, not annealed          | 195                                              | °C                | ISO 75-2/A      |
| Flammability                   | Nominal Value                                    | Test Method       |                 |
| Flame Rating                   | HB                                               | UL 94             |                 |
| Injection                      | Nominal Value                                    | Unit              |                 |
| Drying Temperature             | 80.0 - 100                                       | °C                |                 |
| Drying Time                    | 4.0 - 6.0                                        | hr                |                 |
| Rear Temperature               | 245 - 260                                        | °C                |                 |
| Middle Temperature             | 240 - 250                                        | °C                |                 |
| Front Temperature              | 230 - 250                                        | °C                |                 |
| Nozzle Temperature             | 250 - 260                                        | °C                |                 |

|                    |             |     |
|--------------------|-------------|-----|
| Mold Temperature   | 50.0 - 110  | °C  |
| Injection Pressure | 30.0 - 80.0 | MPa |
| Holding Pressure   | 40.0 - 50.0 | MPa |
| Back Pressure      | 5.00 - 10.0 | MPa |
| Screw Speed        | 40 - 70     | rpm |

#### Injection instructions

Cylinder Temperature 4: 230 to 245°C

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#### Recommended distributors for this material

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