

# PLUSTEK PA4501G6

Polyamide 66

Polyram Ram-On Industries

Message:

30% GLASS FIBER REINFORCED POLYAMIDE 66 FOR LOW FRICTION APPLICATIONS.

| General Information                                 |                                                       |                   |                         |
|-----------------------------------------------------|-------------------------------------------------------|-------------------|-------------------------|
| Filler / Reinforcement                              | Glass fiber reinforced material, 30% filler by weight |                   |                         |
| Features                                            | Low friction coefficient                              |                   |                         |
| Physical                                            | Nominal Value                                         | Unit              | Test Method             |
| Specific Gravity                                    | 1.38                                                  | g/cm <sup>3</sup> | ASTM D792, ISO 1183     |
| Molding Shrinkage                                   |                                                       |                   |                         |
| Flow                                                | 0.30 - 0.40                                           | %                 | ASTM D955               |
| --                                                  | 0.30 - 0.40                                           | %                 | ISO 2577                |
| Water Absorption                                    |                                                       |                   |                         |
| Saturation                                          | 0.13                                                  | %                 | ASTM D570               |
| Saturated, 23°C                                     | 0.13                                                  | %                 | ISO 62                  |
| Equilibrium, 23°C, 50% RH                           | 1.7                                                   | %                 | ASTM D570, ISO 62       |
| Hardness                                            | Nominal Value                                         | Unit              | Test Method             |
| Rockwell Hardness                                   |                                                       |                   |                         |
| Class r                                             | 122                                                   |                   | ASTM D785               |
| R scale                                             | 122                                                   |                   | ISO 2039-2              |
| Mechanical                                          | Nominal Value                                         | Unit              | Test Method             |
| Tensile Modulus                                     | 9200                                                  | MPa               | ASTM D638, ISO 527-2    |
| Tensile Strength (Yield)                            | 190                                                   | MPa               | ASTM D638, ISO 527-2    |
| Tensile Elongation (Break)                          | 3.0                                                   | %                 | ASTM D638, ISO 527-2    |
| Flexural Modulus                                    | 8800                                                  | MPa               | ASTM D790, ISO 178      |
| Flexural Strength                                   | 280                                                   | MPa               | ASTM D790, ISO 178      |
| Impact                                              | Nominal Value                                         | Unit              | Test Method             |
| Notched Izod Impact                                 |                                                       |                   |                         |
| 23°C                                                | 120                                                   | J/m               | ASTM D256               |
| 23°C                                                | 12                                                    | kJ/m <sup>2</sup> | ISO 180                 |
| Thermal                                             | Nominal Value                                         | Unit              | Test Method             |
| Deflection Temperature Under Load                   |                                                       |                   |                         |
| 0.45 MPa, not annealed                              | 259                                                   | °C                | ASTM D648, ISO 75-2/B   |
| 1.8 MPa, not annealed                               | 249                                                   | °C                | ASTM D648, ISO 75-2/A   |
| Maximum operating temperature-Short Peaks Operation | 240                                                   | °C                |                         |
| Maximum Continuous Use Temperature                  | 120                                                   | °C                |                         |
| Melting Temperature                                 | 256                                                   | °C                | ISO 11357-3, ASTM D3418 |

| Electrical                  | Nominal Value | Unit    | Test Method |
|-----------------------------|---------------|---------|-------------|
| Surface Resistivity         | 1.0E+12       | ohms    | IEC 60093   |
| Volume Resistivity          | 1.0E+17       | ohms·cm | IEC 60093   |
| Dielectric Strength         | 90            | kV/mm   | IEC 60243-1 |
| Dielectric Constant (1 MHz) | 3.50          |         | IEC 60250   |
| Flammability                | Nominal Value | Unit    | Test Method |
| Flame Rating (3.00 mm)      | HB            |         | UL 94       |
| Injection                   | Nominal Value | Unit    |             |
| Drying Temperature          | 85.0          | °C      |             |
| Drying Time                 | 3.0           | hr      |             |
| Suggested Max Moisture      | 0.15          | %       |             |
| Rear Temperature            | 270 - 280     | °C      |             |
| Middle Temperature          | 280 - 300     | °C      |             |
| Front Temperature           | 285 - 310     | °C      |             |
| Mold Temperature            | 65.0 - 110    | °C      |             |
| Injection Pressure          | 70.0 - 125    | MPa     |             |
| Injection Rate              | Fast          |         |             |
| Holding Pressure            | 35.0 - 85.0   | MPa     |             |
| Back Pressure               | 0.350 - 0.700 | MPa     |             |
| Screw Speed                 | 60 - 90       | rpm     |             |
| Injection instructions      |               |         |             |

Fill Speed: 50 to 75 mm/sec

The information and data on this page are provided by manufacturers and document providers. SHANGHAI SUSHENG assumes no legal liability. It is strongly recommended to verify all technical data with material suppliers before final material selection. All rights belong to the original authors. If any infringement occurs, please contact us immediately.

#### Recommended distributors for this material

### Susheng Import & Export Trading Co.,Ltd.

Tel: +86 21 5895 8519

Phone: +86 13424755533

Email: sales@su-jiao.com

No. 215, Lianhe North Road, Fengxian District, Shanghai, China

