

# Tarnamid® T-27 GF 10

Polyamide 6

Grupa Azoty S.A.

## Message:

It is 10% glass fibre reinforced polyamide 6 compound, heat stabilised.

| General Information                        |      |                                    |                        |             |
|--------------------------------------------|------|------------------------------------|------------------------|-------------|
| Filler / Reinforcement                     |      | Glass Fiber,10% Filler by Weight   |                        |             |
| Additive                                   |      | Heat Stabilizer                    |                        |             |
| Features                                   |      | Heat Stabilized                    |                        |             |
| Uses                                       |      | Appliances                         |                        |             |
|                                            |      | Automotive Applications            |                        |             |
|                                            |      | Electrical/Electronic Applications |                        |             |
|                                            |      | Household Goods                    |                        |             |
| Appearance                                 |      | Black                              |                        |             |
|                                            |      | Colors Available                   |                        |             |
|                                            |      | Natural Color                      |                        |             |
| Processing Method                          |      | Injection Molding                  |                        |             |
| Physical                                   | Dry  | Conditioned                        | Unit                   | Test Method |
| Density                                    | 1.19 | --                                 | g/cm <sup>3</sup>      | ISO 1183    |
| Melt Volume-Flow Rate (MVR) (275°C/5.0 kg) | 60.0 | --                                 | cm <sup>3</sup> /10min | ISO 1133    |
| Molding Shrinkage                          |      |                                    |                        | ISO 294-4   |
| Across Flow : 2.00 mm                      | 1.2  | --                                 | %                      |             |
| Flow : 2.00 mm                             | 0.80 | --                                 | %                      |             |
| Water Absorption                           |      |                                    |                        | ISO 62      |
| Saturation, 23°C                           | 9.0  | --                                 | %                      |             |
| Equilibrium, 23°C, 50% RH                  | 2.7  | --                                 | %                      |             |
| Hardness                                   | Dry  | Conditioned                        | Unit                   | Test Method |
| Ball Indentation Hardness (H 358/30)       | 180  | 90.0                               | MPa                    | ISO 2039-1  |
| Mechanical                                 | Dry  | Conditioned                        | Unit                   | Test Method |
| Tensile Modulus                            | 4500 | 2500                               | MPa                    | ISO 527-2/1 |
| Tensile Stress (Yield)                     | 100  | 60.0                               | MPa                    | ISO 527-2/5 |
| Tensile Strain (Break)                     | 5.0  | 20                                 | %                      | ISO 527-2/5 |
| Flexural Modulus <sup>1</sup>              | 3900 | 2200                               | MPa                    | ISO 178     |
| Flexural Stress <sup>2</sup>               | 130  | 75.0                               | MPa                    | ISO 178     |
| Impact                                     | Dry  | Conditioned                        | Unit                   | Test Method |

|                                                   |                        |             |                   |                |
|---------------------------------------------------|------------------------|-------------|-------------------|----------------|
| Charpy Notched Impact Strength                    | 4.0                    | 9.0         | kJ/m <sup>2</sup> | ISO 179/1eA    |
| Charpy Unnotched Impact Strength                  | 45                     | 130         | kJ/m <sup>2</sup> | ISO 179/1eU    |
| Notched Izod Impact Strength                      | 5.0                    | 8.0         | kJ/m <sup>2</sup> | ISO 180        |
| Thermal                                           | Dry                    | Conditioned | Unit              | Test Method    |
| Heat Deflection Temperature (1.8 MPa, Unannealed) | 170                    | 165         | °C                | ISO 75-2/A     |
| Vicat Softening Temperature                       | 200                    | 190         | °C                | ISO 306/B      |
| Melting Temperature                               | 221                    | --          | °C                | ISO 11357-3    |
| CLTE                                              |                        |             |                   | ISO 11359-2    |
| Flow : 23 to 55°C                                 | 2.0E-5                 | --          | cm/cm/°C          |                |
| Transverse : 23 to 55°C                           | 1.2E-4                 | --          | cm/cm/°C          |                |
| Limit of Temperature - a few hours operation      | < 200                  | --          | °C                |                |
| Temperature Index                                 |                        |             |                   |                |
| 20000 hr                                          | 110                    | --          | °C                |                |
| 5000 hr                                           | 120                    | --          | °C                |                |
| Burning Rate                                      | +                      | --          |                   | FMVSS 302      |
| ISO Type                                          | PA6, MHR, 14-040, GF10 | --          |                   | ISO 1874       |
| Electrical                                        | Dry                    | Conditioned | Unit              | Test Method    |
| Surface Resistivity                               | 1.0E+16                | 1.0E+12     | ohms              | IEC 60093      |
| Volume Resistivity                                | 1.0E+16                | 1.0E+13     | ohms·cm           | IEC 60093      |
| Electric Strength (2.00 mm)                       | 31                     | 27          | kV/mm             | IEC 60243-1    |
| Dielectric Constant (1 Hz)                        | 3.70                   | 4.70        |                   | IEC 60250      |
| Dissipation Factor (1 Hz)                         | 0.016                  | 0.13        |                   | IEC 60250      |
| Comparative Tracking Index (Solution A)           | 525                    | 525         | V                 | IEC 60112      |
| Flammability                                      | Dry                    | Conditioned | Unit              | Test Method    |
| Flame Rating (3.20 mm)                            | HB                     | --          |                   | UL 94          |
| Glow Wire Flammability Index (2.00 mm)            | 650                    | --          | °C                | IEC 60695-2-12 |
| Injection                                         | Dry                    | Unit        |                   |                |
| Drying Temperature                                | < 80.0                 |             | °C                |                |
| Suggested Max Moisture                            | < 0.10                 |             | %                 |                |
| Suggested Max Regrind                             | 10                     |             | %                 |                |
| Processing (Melt) Temp                            | 240 to 260             |             | °C                |                |
| Mold Temperature                                  | 80.0 to 100            |             | °C                |                |
| Injection Pressure                                | 80.0 to 110            |             | MPa               |                |
| Injection Rate                                    | Moderate               |             |                   |                |
| NOTE                                              |                        |             |                   |                |
| 1.                                                | 2.0 mm/min             |             |                   |                |

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

