

## Azoty Tarnow™ Tarnamid® T-29 MS Polyamide 6 - Natural

Category : Polymer , Thermoplastic , Nylon , Nylon 6 , Nylon 6 , Film Grade

### Material Notes:

Medium-high viscosity extrusion grade for mono or multilayer blown film, including biaxial oriented films, also for production of monofilament; can be used for injection molding and compounding. For uncolored parts produced by injection molding, contain including and demolding agents. Tarnamid® has the following main properties: High mechanical strength, rigidity and hardness High impact strength High vibration damping capacity Good fatigue strength Very good sliding properties, abrasion resistance, low coefficient of friction High thermal resistance, admissible temperature of continuous operation from -60°C to +150°C High chemical resistance, particularly to organic solvents, oils, lubricants and fuels Considerable moisture absorption influencing mechanical and electrical properties Self-extinguishing properties (fire retardant properties) Good electro-insulating properties Good optical properties, relatively good transparency of molded pieces with thickness below 3.2 mm made from natural Tarnamid® (not dyed and not compounded) Can be used for the production of goods coming into contact with food (grades fulfilling requirement of European Union Directive No 2002/72/EEC) with latest amendments Information provided by Azoty Tarnow™.

Order this product through the following link:

[http://www.lookpolymers.com/polymer\\_Azoty-Tarnow-Tarnamid-T-29-MS-Polyamide-6-Natural.php](http://www.lookpolymers.com/polymer_Azoty-Tarnow-Tarnamid-T-29-MS-Polyamide-6-Natural.php)

| Physical Properties               | Metric                               | English                              | Comments  |
|-----------------------------------|--------------------------------------|--------------------------------------|-----------|
| Specific Gravity                  | 1.14 g/cc                            | 1.14 g/cc                            | ISO 1183  |
| Water Absorption                  | 1.8 %                                | 1.8 %                                | ISO 62    |
|                                   | @Time 86400 sec                      | @Time 24.0 hour                      |           |
| Linear Mold Shrinkage, Flow       | 0.014 cm/cm                          | 0.014 in/in                          | ISO 294-4 |
| Linear Mold Shrinkage, Transverse | 0.014 cm/cm                          | 0.014 in/in                          | ISO 294-4 |
| Melt Flow                         | 50 g/10 min                          | 50 g/10 min                          | ISO 1133  |
|                                   | @Load 5.00 kg,<br>Temperature 275 °C | @Load 11.0 lb,<br>Temperature 527 °F |           |

| Mechanical Properties     | Metric        | English       | Comments          |
|---------------------------|---------------|---------------|-------------------|
| Ball Indentation Hardness | 60.0 MPa      | 8700 psi      | cond.; ISO 2039-1 |
|                           | @Load 36.5 kg | @Load 80.5 lb |                   |
| Tensile Strength, Yield   | 140 MPa       | 20300 psi     | dry; ISO 2039-1   |
|                           | @Load 36.5 kg | @Load 80.5 lb |                   |
| Elongation at Break       | 45.0 MPa      | 6530 psi      | cond.; ISO 527    |
|                           | 78.0 MPa      | 11300 psi     |                   |
|                           | 70 %          | 70 %          | dry; ISO 527      |

| Mechanical Properties   | 280 %<br>Metric         | 280 %<br>English           | cond.; ISO 527<br>Comments |
|-------------------------|-------------------------|----------------------------|----------------------------|
| Tensile Modulus         | 0.100 GPa               | 14.5 ksi                   | cond.; ISO 527             |
|                         | 2.80 GPa                | 406 ksi                    | dry; ISO 527               |
| Flexural Strength       | 28.0 MPa                | 4060 psi                   | cond.; ISO 178             |
|                         | 82.0 MPa                | 11900 psi                  | dry; ISO 178               |
| Charpy Impact Unnotched | NB                      | NB                         | ISO 179 1eU                |
| Charpy Impact, Notched  | 0.550 J/cm <sup>2</sup> | 2.62 ft-lb/in <sup>2</sup> | dry; ISO 179 1eA           |
|                         | 1.20 J/cm <sup>2</sup>  | 5.71 ft-lb/in <sup>2</sup> | cond.; ISO 179 1eA         |

| Thermal Properties                          | Metric             | English              | Comments         |
|---|--------------------|----------------------|------------------|
| Melting Point                               | 221 °C             | 430 °F               |                  |
| Deflection Temperature at 1.8 MPa (264 psi) | 50.0 °C            | 122 °F               | cond.; ISO 75    |
|   | 60.0 °C            | 140 °F               | dry; ISO 75      |
| Vicat Softening Point                       | 195 °C             | 383 °F               | ISO 306          |
|   | @Load 5.10 kg      | @Load 11.2 lb        |                  |
| Flammability, UL94                          | V-2                | V-2                  |                  |
|   | @Thickness 1.60 mm | @Thickness 0.0630 in |                  |
| Glow Wire Test                              | 750 °C             | 1380 °F              | PN-EN-60695-2-12 |
|   | @Thickness 2.00 mm | @Thickness 0.0787 in |                  |

| Electrical Properties      | Metric          | English         | Comments      |
|----------------------------|-----------------|-----------------|---------------|
| Volume Resistivity         | 1.00e+12 ohm-cm | 1.00e+12 ohm-cm | cond.; IEC 93 |
|                            | 1.00e+15 ohm-cm | 1.00e+15 ohm-cm | dry; IEC 93   |
| Surface Resistance         | 1.00e+13 ohm    | 1.00e+13 ohm    | cond.; IEC 93 |
|                            | 1.00e+15 ohm    | 1.00e+15 ohm    | dry; IEC 93   |
| Dielectric Strength        | 30.0 kV/mm      | 762 kV/in       | IEC 243-1     |
| Comparative Tracking Index | 600 V           | 600 V           | IEC 112       |

| Processing Properties | Metric       | English      | Comments |
|-----------------------|--------------|--------------|----------|
| Melt Temperature      | 230 - 290 °C | 446 - 554 °F |          |

| Mold Temperature<br>Processing Properties | 60.0 - 120 °C<br>Metric                        | 140 - 248 °F<br>English                    | 80 - 90°C is recommended<br>Comments |
|---|--|--|--------------------------------------|
| Drying Temperature                        | 75.0 - 100 °C<br><br>@Time 7200 - 14400<br>sec | 167 - 212 °F<br><br>@Time 2.00 - 4.00 hour |                                      |
| Moisture Content                          | <= 0.10 %                                      | <= 0.10 %                                  |                                      |
| Injection Pressure                        | 80.0 - 130 MPa                                 | 11600 - 18900 psi                          | 80 MPa is recommended                |

## Contact Songhan Plastic Technology Co.,Ltd.

Website : [www.lookpolymers.com](http://www.lookpolymers.com)

Email : [sales@lookpolymers.com](mailto:sales@lookpolymers.com)

Tel : +86 021-51131842

Mobile : +86 13061808058

Skype : lookpolymers

Address : United North Road 215,Fengxian District, Shanghai City,China