

## Azoty Tarnow™ Tarnamid® T-27 MCS Polyamide 6 - Colored

Category : Polymer , Thermoplastic , Nylon , Nylon 6 , Nylon 6 , Unreinforced

### Material Notes:

Medium viscosity injection molding grade, also used for compounding, for production of monofilament, bristles and fibers. For colored parts produced by injection molding. 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-27-MCS-Polyamide-6-Colored.php](http://www.lookpolymers.com/polymer_Azoty-Tarnow-Tarnamid-T-27-MCS-Polyamide-6-Colored.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	0.016 cm/cm	0.016 in/in	ISO 294-4
Linear Mold Shrinkage, Transverse	0.018 cm/cm	0.018 in/in	ISO 294-4
Melt Flow	100 g/10 min	100 g/10 min	ISO 1133
	@Load 5.00 kg, Temperature 275 °C	@Load 11.0 lb, Temperature 527 °F	

Mechanical Properties	Metric	English	Comments
Ball Indentation Hardness	74.0 MPa	10700 psi	cond.; ISO 2039-1
	@Load 36.5 kg	@Load 80.5 lb	
Tensile Strength, Yield	150 MPa	21800 psi	dry; ISO 2039-1
	@Load 36.5 kg	@Load 80.5 lb	
Elongation at Break	45.0 MPa	6530 psi	cond.; ISO 527
	80.0 MPa	11600 psi	dry; ISO 527
Elongation at Break	50 %	50 %	dry; ISO 527
	200 %	200 %	cond.; ISO 527

Tensile Modulus Mechanical Properties	1.30 GPa Metric	189 ksi English	cond.; ISO 527 Comments
	3.00 GPa	435 ksi	dry; ISO 527
Flexural Strength	25.0 MPa	3630 psi	cond.; ISO 178
	90.0 MPa	13100 psi	dry; ISO 178
Charpy Impact Unnotched	NB	NB	ISO 179 1eU
Charpy Impact, Notched	0.400 J/cm <sup>2</sup>	1.90 ft-lb/in <sup>2</sup>	dry; ISO 179 1eA
	NB	NB	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	200 °C	392 °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+13 ohm-cm	1.00e+13 ohm-cm	cond.; IEC 93
	1.00e+15 ohm-cm	1.00e+15 ohm-cm	dry; IEC 93
Surface Resistance	1.00e+14 ohm	1.00e+14 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	60.0 - 120 °C	140 - 248 °F	80 - 90°C is recommended

Processing Properties	Metric	English	Comments
Drying Temperature	75.0 - 100 °C @Time 7200 - 14400 sec	12 °F @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.

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