

## Azoty Tarnow™ Tarnamid® T-27 MCS V2 Polyamide 6 - Flame Retarded, Unreinforced

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

### Material Notes:

Flame retarded (class V2), bromine and red phosphorus free, medium viscosity injection molding grade, also used for compounding, for production of monofilament, bristles and fibers. 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-V2-Polyamide-6-Flame-Retarded-Unreinforced.php](http://www.lookpolymers.com/polymer_Azoty-Tarnow-Tarnamid-T-27-MCS-V2-Polyamide-6-Flame-Retarded-Unreinforced.php)

Physical Properties	Metric	English	Comments
Specific Gravity	1.15 g/cc	1.15 g/cc	ISO 1183
Water Absorption	1.5 %	1.5 %	ISO 62
	@Time 86400 sec	@Time 24.0 hour	
Linear Mold Shrinkage, Flow	0.015 cm/cm	0.015 in/in	ISO 294-4
Linear Mold Shrinkage, Transverse	0.013 cm/cm	0.013 in/in	ISO 294-4
Melt Flow	140 g/10 min	140 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	70.0 MPa	10200 psi	cond.; ISO 2039-1
	@Load 36.5 kg	@Load 80.5 lb	
Tensile Strength	150 MPa	21800 psi	dry; ISO 2039-1
	@Load 36.5 kg	@Load 80.5 lb	
Tensile Strength	80.0 MPa	11600 psi	ISO 527
Elongation at Break	20 %	20 %	ISO 527
Tensile Modulus	1.60 GPa	232 ksi	cond.; ISO 527

Mechanical Properties	3.60 GPa Metric	522 ksi English	dry; ISO 527 Comments
Flexural Strength	35.0 MPa	5080 psi	cond.; ISO 178
	90.0 MPa	13100 psi	dry; ISO 178
Charpy Impact Unnotched	8.00 J/cm <sup>2</sup>	38.1 ft-lb/in <sup>2</sup>	dry; ISO 179 1eU
	NB	NB	cond.; 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
	0.900 J/cm <sup>2</sup>	4.28 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	185 °C	365 °F	cond.; ISO 306
	@Load 5.10 kg	@Load 11.2 lb	
	200 °C	392 °F	dry; 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	850 °C	1560 °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+14 ohm-cm	1.00e+14 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	24.0 kV/mm	610 kV/in	cond.; IEC 243-1
	30.0 kV/mm	762 kV/in	dry; 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
Drying Temperature	75.0 - 100 °C @Time 7200 - 14400 sec	167 - 212 °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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