



SDPPL Logo

SDPPL - SD Polymer Pvt Ltd

TECHNICAL DATA SHEET

PA6 (Nylon 6) Compounds

Empowering Plastics Through Technology

45+ Years of Excellence in Polymer Compounding

 Faridabad, India |  +91-9911143733 |  technical@sdpolymer.in

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<p style="font-size: 20px; font-weight: bold; color: white; margin: 8px 0; text-shadow: 2px 2px 4px rgba(0,0,0,0.3); text-align: center;">PA6 (Nylon 6) Compounds</p>
<p style="font-size: 16px; color: white; margin: 10px 0; text-shadow: 1px 1px 2px rgba(0,0,0,0.3); text-align: center;">Empowering Plastics Through Technology</p>
<p style="font-size: 15px; color: white; margin: 5px 0; text-shadow: 1px 1px 2px rgba(0,0,0,0.3); text-align: center;">45+ Years of Excellence in Polymer Compounding</p>
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  <p style="font-size: 14px; color: white; margin: 3px 0; text-shadow: 1px 1px 2px rgba(0,0,0,0.3);">📍 Faridabad, India | 📞 +91-9911143733 | ✉️ technical@sdpolymer.in</p>
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Product Overview

SD Polymer's Polyamide 6 (Nylon 6) compounds deliver exceptional performance for demanding applications across automotive, industrial, electrical, and consumer sectors. Our comprehensive portfolio includes various grades optimized for specific performance requirements.

Product Grades & Properties

Our PA6 compound range includes multiple specialized grades with tailored property profiles to meet diverse application needs. Each grade is formulated to deliver optimal performance in its intended use case.

Key Features

- Excellent mechanical properties
- Superior thermal stability
- Good chemical resistance
- Consistent quality and processability

- Available in various reinforcement levels
- Custom formulations available

General Properties

Property	Test Method	Typical Values	Unit
Density	ISO 1183	1.10-1.45	g/cm ³
Tensile Strength	ISO 527	80-200	MPa
Tensile Modulus	ISO 527	2500-9000	MPa
Elongation at Break	ISO 527	3-100	%
Flexural Strength	ISO 178	100-280	MPa
Flexural Modulus	ISO 178	2500-9000	MPa
Izod Impact (notched)	ISO 180	5-70	kJ/m ²
HDT (1.8 MPa)	ISO 75	100-260	°C

Note: Specific values vary by grade. Contact our technical team for detailed specifications.

Processing Guidelines

Drying

- Temperature: 80-120°C (material dependent)
- Time: 2-4 hours
- Moisture content: < 0.02-0.05%
- Use dehumidifying dryer for hygroscopic materials

Injection Molding Parameters

Parameter	Typical Range
Barrel Temperature	220-320°C
Mold Temperature	60-110°C
Injection Pressure	60-120 MPa
Back Pressure	5-15 MPa

Design Recommendations

- Wall thickness: 1.5-4.0 mm
 - Draft angle: 0.5-2.0° per side
 - Corner radius: minimum 0.5 mm
 - Uniform wall thickness for optimal flow
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Applications

Our Polyamide 6 (Nylon 6) compounds are used across diverse industries including:

- **Automotive:** Structural components, electrical systems, interior/exterior parts
 - **Electrical & Electronics:** Connectors, housings, circuit breakers, switches
 - **Industrial:** Machinery components, gears, bearings, housings
 - **Consumer Goods:** Appliances, power tools, sporting goods
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Quality Certifications

- ISO 9001:2015 Quality Management System
- ISO 14001:2015 Environmental Management
- REACH Compliance
- RoHS Compliant (for applicable grades)

- UL Recognition (for applicable grades)
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Storage & Handling

- Store in original sealed packaging
 - Storage temperature: 15-30°C
 - Relative humidity: < 70%
 - Protect from direct sunlight and moisture
 - Shelf life: 12 months from manufacturing date
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Safety Information

- Refer to Safety Data Sheet (SDS) for detailed safety information
 - Use appropriate personal protective equipment (PPE)
 - Ensure adequate ventilation during processing
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Contact Information

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