



SDPPL - SD Polymer Pvt Ltd

TECHNICAL DATA SHEET

Polypropylene (PP) Compounds

Empowering Plastics Through Technology

45+ Years of Excellence

Product Overview

SDPPL offers a comprehensive range of polypropylene compounds engineered for demanding applications across automotive, industrial, and consumer sectors. Our PP compounds are formulated to deliver superior mechanical properties, excellent processability, and consistent quality.

Product Portfolio

1. Talc-Filled PP Compounds

Grade Series: SDPP-T Series

Property	Test Method	Unit	10% Talc	20% Talc	30% Talc	40% Talc
Tensile Strength	ISO 527	MPa	28-32	30-34	32-36	34-38
Flexural Modulus	ISO 178	MPa	1400-1600	1800-2000	2200-2400	2600-2800
Impact Strength (Notched Izod, 23°C)	ISO 180	kJ/m ²	3.5-4.5	3.0-4.0	2.5-3.5	2.0-3.0
Heat Deflection Temperature (0.45 MPa)	ISO 75	°C	95-105	105-115	115-125	125-135
Melt Flow Index (230°C, 2.16 kg)	ISO 1133	g/10 min	15-25	12-22	10-20	8-18
Density	ISO 1183	g/cm ³	1.02-1.04	1.06-1.08	1.10-1.12	1.14-1.16

Applications: Automotive interior parts, appliance housings, industrial components

2. Glass Fiber Reinforced PP Compounds

Grade Series: SDPP-GF Series

Property	Test Method	Unit	10% GF	20% GF	30% GF	40% GF
Tensile Strength	ISO 527	MPa	45-50	60-65	75-80	90-95
Flexural Modulus	ISO 178	MPa	2500-2800	4000-4500	5500-6000	7000-7500
Impact Strength (Notched Izod, 23°C)	ISO 180	kJ/m ²	5.0-6.0	6.5-7.5	7.0-8.0	7.5-8.5
Heat Deflection Temperature (1.8 MPa)	ISO 75	°C	130-140	145-155	155-165	160-170
Melt Flow Index (230°C, 2.16 kg)	ISO 1133	g/10 min	10-18	8-15	6-12	5-10
Density	ISO 1183	g/cm ³	1.00-1.02	1.04-1.06	1.08-1.10	1.12-1.14

Applications: Automotive under-the-hood components, structural parts, power tool housings

3. Impact-Modified PP Compounds

Grade Series: SDPP-IM Series

Property	Test Method	Unit	Standard	High Impact	Super Impact
Tensile Strength	ISO 527	MPa	22-26	18-22	15-19
Flexural Modulus	ISO 178	MPa	1000-1200	800-1000	600-800
Impact Strength (Notched Izod, 23°C)	ISO 180	kJ/m ²	8-12	15-20	25-35
Impact Strength (Notched Izod, -20°C)	ISO 180	kJ/m ²	4-6	8-12	15-20
Heat Deflection Temperature (0.45 MPa)	ISO 75	°C	85-95	80-90	75-85
Melt Flow Index (230°C, 2.16 kg)	ISO 1133	g/10 min	12-20	10-18	8-15

Applications: Automotive bumpers, exterior trim, refrigerator liners, crates

4. Mineral-Filled PP Compounds

Grade Series: SDPP-MF Series

Property	Test Method	Unit	20% Mineral	30% Mineral	40% Mineral
Tensile Strength	ISO 527	MPa	28-32	30-34	32-36
Flexural Modulus	ISO 178	MPa	1600-1800	2000-2200	2400-2600
Impact Strength (Notched Izod, 23°C)	ISO 180	kJ/m ²	3.0-4.0	2.5-3.5	2.0-3.0
Heat Deflection Temperature (0.45 MPa)	ISO 75	°C	100-110	110-120	120-130
Melt Flow Index (230°C, 2.16 kg)	ISO 1133	g/10 min	15-25	12-22	10-20
Density	ISO 1183	g/cm ³	1.08-1.10	1.12-1.14	1.16-1.18

Applications: Automotive interior panels, appliance parts, furniture components

Processing Guidelines

Injection Molding Parameters

Parameter	Recommended Range
Barrel Temperature	200-240°C (zones 1-4)
Nozzle Temperature	210-230°C
Mold Temperature	30-60°C
Injection Pressure	60-120 MPa
Back Pressure	5-15 MPa
Screw Speed	50-150 rpm
Drying	Not required (moisture < 0.05%)

Extrusion Parameters

Parameter	Recommended Range
Barrel Temperature	190-230°C (zones 1-4)
Die Temperature	200-220°C
Screw Speed	30-100 rpm
Line Speed	Varies by application

Quality Certifications

- **ISO 9001:2015** - Quality Management System
- **IATF 16949:2016** - Automotive Quality Management
- **ISO 14001:2015** - Environmental Management
- **RoHS Compliant** - Restriction of Hazardous Substances

- **REACH Compliant** - European Chemical Regulation
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Packaging & Storage

Standard Packaging: 25 kg bags, 1000 kg big bags, or bulk delivery

Storage Conditions:

- Store in dry, cool place away from direct sunlight
 - Temperature: 5-35°C
 - Relative Humidity: < 70%
 - Shelf Life: 12 months from manufacturing date under proper storage
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Safety Information

Handling: Use standard industrial hygiene practices. Avoid dust generation. Use adequate ventilation.

Personal Protection: Safety glasses, dust mask (if dust is generated), gloves recommended.

Fire Hazard: Combustible material. Use water spray, foam, or CO₂ extinguisher.

Disposal: Dispose according to local environmental regulations. Material is recyclable.

Technical Support

For grade selection assistance, processing optimization, or custom compound development:

SDPPL Technical Support

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Disclaimer

The information provided in this technical data sheet is based on our current knowledge and experience. It is intended as a guide only and does not constitute a specification or warranty. Properties may vary depending on processing conditions and application requirements. Users should conduct their own tests to determine suitability for specific applications.

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