

COMPOUND PP

High-Impact, High-Gloss PP Compound Resins

▶ SB52S

● Description

High glossy PP SB52S features superior surface gloss and extremely high Impact resistance. As the product also offers superior long-term thermal stability, it is suitable for electric heating equipment that requires simultaneous gloss, impact-resistance and thermal stability.

● Characteristics

Compound PP SB52S provides improved gloss and high heat-resistance and impact-resistance needed for the exterior parts of electric heating equipment. With its superior long-term thermal stability, SB52S is suitable for use in parts for small home electric heaters.

- ▶ Superior impact-resistance
- ▶ Superior processability and surface gloss
- ▶ Superior thermal durability in high-temperature environments.

● Applications

- ▶ Round rice cooker bases, covers and inner covers
- ▶ Dishwasher bases
- ▶ Electric heating equipment which require gloss, impact-resistance, and long-term thermal stability

● **Major Property Requirements**

- ▶ Gloss, high impact-resistance
- ▶ Long-term thermal stability
- ▶ Food containers which require sanitation

● **General Processing Guide**

The melt index for PP SB52S is 10g/10min. The product is manufactured under general high glossy PP processing standards and typical processing conditions are as follows:

| Conditions | | Data |
|-----------------------------------------|-------------------|-------------|
| Cylinder Temp. | Feeding zone | 0 ~ 190 |
| | Plasticizing zone | 180 ~ 200 |
| | Metering zone | 180 ~ 210 |
| Nozzle Temp. (°C) | | 180 ~ 210 |
| Mold Temp. (°C) | | 50 ~ 70 |
| Injection Pressure(kg/cm ²) | | 400 ~ 700 |
| Back Pressure (kg/cm ²) | | 5 ~ 20 |
| Injection Speed (%) | | 40 ~ 70 |

● Physical Properties

| Properties | Test Method | Unit | SB52S |
|-----------------------------------|------------------------------------|--------------------|---------|
| Physical Properties | | | |
| Melt Index | ASTM D1238 230 °C | g/10min | 10.0 |
| Specific Gravity | ASTM D 792 | g/cm ³ | 1.07 |
| Mechanical & Thermal Property | | | |
| Tensile Strength at Yield | ASTM D638 50mm/min | kg/cm ² | 300 |
| Elongation at Break | | % | 60 |
| Flexural Modulus | ASTM D790 5mm/min | kg/cm ² | 20,000 |
| Izod Impact Strength | ASTM D256 23 °C | kg.cm/cm | 10.0 |
| Heat Distortion Temperature | ASTM D648 4.6kg/cm ² | °C | 122 |
| Rockwell Hardness | ASTM D785 | R-Scale | 105 |
| Processing & Rheological Property | | | |
| Mold Shrinkage | HANWHA TOTAL | % | 1.3~1.7 |
| Recognition | | | |
| UL94 | - | - | HB |
| Food Application | | | YES |

● **Food Contact Application**

- ▶ There may be some limitation to apply Hanwha Total SB52S to the food packaging
- ▶ Thus, the verification on the suitability is necessary. In case you might need additional information, please contact Hanwha Total Composite Development Team.

● **Other Information**

The information in this document can be used for reference only, not to be construed as specification. Customers are responsible for determine whether our product and information is suitable for their particular purpose and for the compliance with related law.

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