

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

The actual injection molding conditions should be adjusted by considering molding machine type, mold design and part size



● 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

* Data shown above are representative values for reference purposes only and not to be construed as specifications.



● **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.

Hanwha Total assumes no obligation or liability for the information in this document.

