

SAMSUNG Resin Compounds

Heat Resistant Compound PP

TB51
TB52
TB53
TB54

Compound PP for Heat Resistance

<http://www.samsungatofina.com/>

● Description

Manufactured by adding an inorganic filler, talc to polypropylene, Samsung's heat-resistant PP compounds are designed for use in injection molding, and feature highly improved strength and heat-resistance. Produced with a variety of base PPs, such as HIPP (High Isotactic or High Crystalline Polypropylene), SAC' special processing technology results in PP of the highest quality.

These products feature superior rigidity and impact strength, long-term heat resistance and anti-static property. dimensional stability is another plus! These SAC products are widely used in electric and electronic parts, household appliances and automobiles.

● Characteristics

- ▶ Addition of an inorganic filler, talc enhances heat-resistance and dimensional stability;
- ▶ Superior strength and impact-resistance;
- ▶ Superior processability.

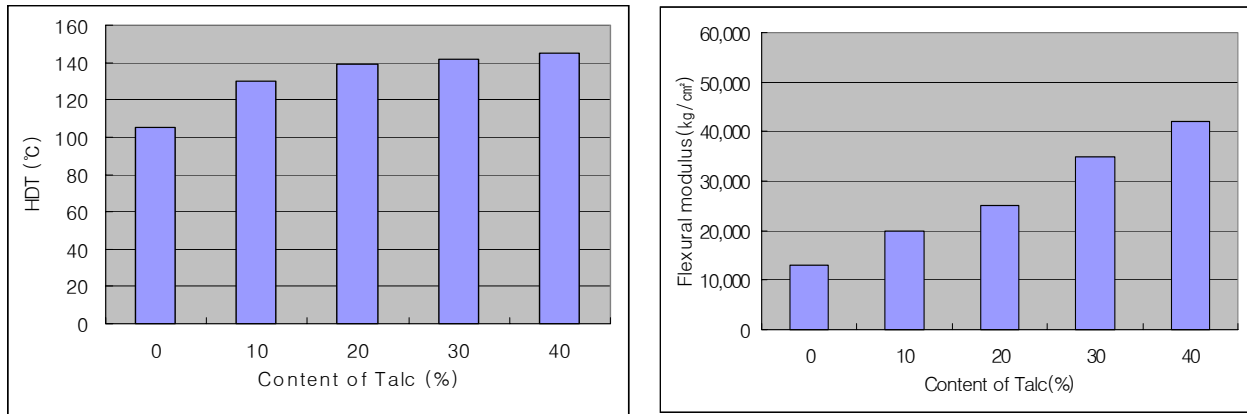


Fig 1. the effect on heat resistance and stiffness of contents of talc

● Applications

► Electric/electronic products

- Dish washer and microwave oven parts such as doors, air covers, air ducts;
- Washing machines parts (such as balances), and TV speaker cabinets;
- Household goods such as food containers.

● Physical Properties

Properties	Test Method	Condition	Units	TB51	TB52
Melt Index	ASTM D1238	230°C, 2.16kg	g/10min	11.0	11.0
Density	ASTM D1505	-	g/cm ³	0.97	1.07
Tensile Strength at Yield	ASTM D638	50mm/min	kg/cm ²	350	350
Elongation at Break	ASTM D638		%	60	60
Flexural Modulus	ASTM D790	5mm/min	kg/cm ²	20,000	25,000
Izod Impact Strength	ASTM D256	23°C	kg.cm/cm	5.5	5.0
Rockwell Hardness	ASTM D785	Rockwell	R-Scale	95	93
Heat Deflection Temp.	ASTM D648	4.6kg/cm ²	°C	130	139
Shrinkage Ratio	SAC Method	2mmt	%	1.2~1.6	1.0~1.4
Flammability	UL94	-	-		HB

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

Properties	Test Method	Condition	Units	TB53	TB54
Melt Index	ASTM D1238	230°C, 2.16kg	g/10min	9.0	9.0
Density	ASTM D1505	-	g/cm ³	1.16	1.24
Tensile Strength at Yield	ASTM D638	50mm/min	kg/cm ²	340	340
Elongation at Break	ASTM D638		%	60	40
Flexural Modulus	ASTM D790	5mm/min	kg/cm ²	35,000	42,000
Izod Impact Strength	ASTM D256	23°C	kg.cm/cm	4.5	4.0
Rockwell Hardness	ASTM D785	Rockwell	R-Scale	91	89
Heat Distortion Temp.	ASTM D648	4.6kg/cm ²	°C	142	145
Shrinkage ratio	SAC Method	2mmt	%	0.8~1.2	0.6~1.0
Flammability	UL94	-	-	HB	HB

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● General Processing Guide

▶ Typical Processing Conditions:

- Feeding zone 180 ~ 200°C
- Plasticizing zone 190 ~ 210°C
- Metering zone 200 ~ 220°C
- Mold temperature 50 ~ 80°C
- Screw rpm 30 ~ 80
- Injection Pressure 400 ~ 900 kg/cm²
- Holding Pressure 600 ~ 1000 kg/cm²

Actual injection conditions must be adjusted according to the types of injection machines and sizes of parts.

● Contacts

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