



COMPOUND PP

Ultra fluidity, high shock-resist non-flammable
Composite PP Resin

▶ FB72D

▶ FB82N

▶ FB82S

● **Description**

Non-flammable PP, FB72D, FB82N, and FB82S, exhibit high shock resistance by using Base resin of excellent shock resistance. In particular, its high fluidity allows moldability and fabulous appearance with good non-flammability. Thus, it is widely used for exterior of electric/electronic parts.

● **Characteristics**

- ▶ As non-flammability grade of UL94 V-0, it provides high fluidity and shock resistance, nice exterior of a molding product, and long-term thermal stability.
- ▶ There is no non-flammable agent blooming effect that can be shown at general non-flammable PP.
- ▶ Its rigidity and excellent scratch hardness allows to be used for exterior of electric products.

● **Applications**

- ▶ Bidet Control plate
- ▶ Exterior parts of a washer, PCB cover
- ▶ Vacuum cleaner Motor cover, etc.

● Major Property Requirements

- ▶ Non-flammability(UL94 V-0)
- ▶ High heat-resistance
- ▶ Dimensional stability
- ▶ Property balance between rigidity and shock resistance

● Physical Properties

▶ Resin Properties

Properties	Test method	Condition	Unit	FB72D	FB82N	FB82S
Melt index	ASTM D1238	230 °C	g/10min	30.0	45.0	40
Gravity	ASTM D792	-	-	1.04	1.04	1.02
Tensile strength at Yield	ASTM D638	50mm/min	kg/cm ²	290	300	300
Elongation at Break			%	30	30	10
Flexural Modulus	ASTM D790	50mm/min	kg/cm ²	15,000	16,000	19,000
IZOD Impact Strength	ASTM D256	23 °C	kg.cm/cm	5.5	5.0	4.5
Heat Distortion Temperature	ASTM D648	4.6kgf	°C	110	110	105
Surface Hardness	ASTM D785	Rockwell	R-Scale	90	90	103
Mold shrinkage	Hanwha Total	2mm(t)	%	1.1~1.5	1.1~1.5	1.2~1.6
Non-flammability	UL94	-	-	V-0 (1/32")	V-0 (1/32")	V-0 (1/32")

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

● General Processing Guide

- ▶ Ultra fluidity, high shock-resist, non-flammable PP, FB72D, FB82, and FB82S, have a similar processing condition as the previous non-flammable PP. While separate drying before molding is not necessary, drying for about 2 hours at 90~100 °C helps to get better appearance of a molding product in processing.
- ▶ Use in high temperature causes dismantlement so that it is molded under 220 °C of the resin temperature.
- ▶ There would be no problem when molding in normal cycle time. In order to avoid dismantlement of non-flammable agents among residual resin, the residual resin in the cylinder should be purged and cleaned with flammable PP at both break and finish.

Standard PP processing conditions may be applied, and the typical processing conditions are as follows:

Items		Condition
Cylinder temperature(°C)	Rear part	170 ~ 180
	Middle part	180 ~ 200
	Front part	180 ~ 200
Nozzle temperature (°C)		190 ~ 210
Metal mold temperature (°C)		40 ~ 70
Injection pressure (kg/cm ²)		400 ~ 800
Back pressure (kg/cm ²)		5 ~ 20
Injection speed (%)		50 ~ 80

● Food Contact Application

- ▶ Hanwha Total FB72D, FB82N, FB82S are not intended for use in food-contact and medical applications either.
- ▶ In case you might need additional technical or regulatory 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.