

Composite PP

FH51

Heat-resistant & weatherability flame-retardant PP composite

Application

Automotive E&E parts, Lighting parts, Christmas lamp socket

Characteristics

Flame retardant (UL94 V-2 certification), High heat resistance, High stiffness

Physical properties

Item	Test Method	Unit	Typical Value
Melt index (230°C)	ASTM D1238	g/10min	12
Specific gravity	ASTM D792	g/cm ³	0.93
Tensile strength (at yield)	ASTM D638	kg/cm ²	350
Elongation (at break)	ASTM D638	%	30
Flexural modulus	ASTM D790	kg/cm ²	17,000
Izod Impact Strength (23°C)	ASTM D256	kg cm/cm	4
Rockwell hardness	ASTM D785	R scale	95
Heat distortion temperature	ASTM D648	°C	120
Shrinkage Ratio	HTC METHOD	%	1.4 ~ 1.7
Flame-retardancy	UL94	-	V-2

Note: The above physical property value is a representative value for reference and is not a product quality standard.

Processing conditions

Item	Unit	Typical value
Cylinder temperature (rear)	°C	170 ~ 180
Cylinder temperature (middle)	°C	180 ~ 200
Cylinder temperature (front)	°C	180 ~ 200
Nozzle temperature	°C	190 ~ 210
Mold temperature	°C	40 ~ 70
Injection pressure	kg/cm ²	400 ~ 800
Back pressure	kg/cm ²	5 ~ 20
Injection speed	%	50 ~ 80

※ Actual injection conditions should be adjusted according to the type of injection machine, mold, and part size.

**Certification**

Hanwha TotalEnergies Petrochemical FH51 is not suitable for food packaging or medical supplies.

For further inquiries, please contact Hanwha TotalEnergies Petrochemical Composite Development Team.

**Contact
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