

# Hanwha Total PP FH51

Polypropylene

HANWHA TOTAL PETROCHEMICALS Co., Ltd.

Message:

FH51 is flame-resistant polypropylene compound designed for outdoor uses requiring heat-resistance and weatherability. For outdoor use, UL specifications of fire-resistance and weatherability are required.

General Information			
UL YellowCard	E140331-222923		
Additive	heat stabilizer		
Features	Workability, good		
	High liquidity		
	Good weather resistance		
	Heat resistance, high		
	Thermal Stability		
	Flame retardancy		
Uses	Electrical/Electronic Applications		
	Electrical components		
Forms	Particle		
Processing Method	Injection molding		
Physical	Nominal Value	Unit	Test Method
Specific Gravity	0.930	g/cm³	ASTM D792
Melt Mass-Flow Rate (MFR) (230°C/2.16 kg)	12	g/10 min	ASTM D1238
Molding Shrinkage - Flow (2.00 mm)	1.4 - 1.7	%	ASTM D955
Hardness	Nominal Value	Unit	Test Method
Rockwell Hardness (R-Scale)	95		ASTM D785
Mechanical	Nominal Value	Unit	Test Method
Tensile Strength <sup>1</sup> (Yield)	63.7	MPa	ASTM D638
Tensile Elongation <sup>2</sup> (Break)	30	%	ASTM D638
Flexural Modulus <sup>3</sup>	1670	MPa	ASTM D790
Impact	Nominal Value	Unit	Test Method
Notched Izod Impact (23°C)	39	J/m	ASTM D256
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load (0.45 MPa, Unannealed)	120	°C	ASTM D648
Flammability	Nominal Value		Test Method
Flame Rating	V-2		UL 94
Injection	Nominal Value	Unit	

Rear Temperature	170 - 180	°C
Middle Temperature	180 - 200	°C
Front Temperature	180 - 200	°C
Nozzle Temperature	190 - 210	°C
Mold Temperature	40.0 - 70.0	°C
Injection Pressure	39.2 - 78.5	MPa
Back Pressure	0.490 - 1.96	MPa

#### Injection instructions

Injection Speed: 50 to 80 %

#### NOTE

- |    |            |
|----|------------|
| 1. | 50 mm/min  |
| 2. | 50 mm/min  |
| 3. | 5.0 mm/min |

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#### Recommended distributors for this material

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