

Hanwha Total PP SH52C

Polypropylene

HANWHA TOTAL PETROCHEMICALS Co., Ltd.

Message:

SH52C is a polypropylene that displays improved heat resistance and dimensional stability when compared to other high gloss PP brands.

Often, other high gloss brands have the gloss but a much lower resistance to thermal strain, unsuitable for use in electric heating equipment. SH52C was the first Korean product of its kind to acquire Relative Thermal Index (RTI) certification, 120°C, based on the regulation of UL746 which evaluates long-term thermal stability, and the UL746 for long-term thermal stability. This grade is popularly used in high-temperature electric heating equipment.

General Information			
UL YellowCard	E140331-222948	E140331-222947	
Features	Good dimensional stability		
	Rigidity, high		
	Highlight		
	Impact resistance, high		
	Workability, good		
	Scratch resistance		
	Good chemical resistance		
	Heat resistance, high		
	Durability		
	Thermal stability, good		
Uses	Electrical/Electronic Applications		
	Electrical components		
	Electrical appliances		
	Household goods		
	Food container		
	Bathroom products		
Forms	Particle		
Processing Method	Injection molding		
Physical	Nominal Value	Unit	Test Method
Specific Gravity	1.11	g/cm ³	ASTM D792
Melt Mass-Flow Rate (MFR) (230°C/2.16 kg)	12	g/10 min	ASTM D1238
Molding Shrinkage - Flow (2.00 mm)	1.1 - 1.5	%	ASTM D955
Hardness	Nominal Value	Unit	Test Method
Rockwell Hardness (R-Scale)	102		ASTM D785
Mechanical	Nominal Value	Unit	Test Method
Tensile Strength ¹ (Yield)	37.8	MPa	ASTM D638
Tensile Elongation ² (Break)	40	%	ASTM D638

Flexural Modulus ³	2260	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)	133	°C	ASTM D648
Flammability	Nominal Value		Test Method
Flame Rating	HB		UL 94
Additional Information			
UL746B: 120 °C			
Injection	Nominal Value	Unit	
Rear Temperature	170 - 190	°C	
Middle Temperature	180 - 200	°C	
Front Temperature	180 - 210	°C	
Nozzle Temperature	180 - 210	°C	
Mold Temperature	50.0 - 70.0	°C	
Injection Pressure	39.2 - 68.6	MPa	
Back Pressure	0.490 - 1.96	MPa	
Injection instructions			
Injection Speed: 40 to 70 %			
NOTE			
1.	50 mm/min		
2.	50 mm/min		
3.	5.0 mm/min		

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