SABIC® PPcompound 7450

Polypropylene

Saudi Basic Industries Corporation (SABIC)

Message:

SABIC® PPCOMPOUND 7450 is a mineral filled, impact modified polypropylene TPO. This material can exhibit high impact resistance and good paintability in automotive exterior applications. The IMDS is 87784390.

General Information			
Filler / Reinforcement	Mineral filler		
Additive	Impact modifier		
Features	Impact modification Impact resistance, high Sprayable		
Uses	Application in Automobile Field Automotive exterior parts		
Processing Method	Injection molding		
Physical	**Nominal Value**	**Unit**	**Test Method**
Specific Gravity			
--	0.968	g/cm³	ASTM D792
--	0.970	g/cm³	ISO 1183
Melt Mass-Flow Rate (MFR) (230°C/2.16 kg)	22	g/10 min	ISO 1133
Molding Shrinkage			Internal method
Vertical flow direction: 80°C, 1 hour	1.2	%	Internal method
Vertical flow direction: 23°C, 48 hours	1.0	%	Internal method
Flow direction: 80°C, 1 hour	0.74	%	Internal method
Flow direction: 23°C, 48 hours	0.69	%	Internal method
Hardness	**Nominal Value**	**Unit**	**Test Method**
Durometer Hardness (Shore D)	61		ISO 868
Mechanical	**Nominal Value**	**Unit**	**Test Method**
Tensile Modulus			
-- [1]	1130	MPa	ASTM D638
--	1370	MPa	ISO 527-2/1
Tensile Strength			
Yield [2]	15.0	MPa	ASTM D638
Yield	18.0	MPa	ISO 527-2/50
Fracture [3]	13.0	MPa	ASTM D638
Fracture	13.9	MPa	ISO 527-2/1A/50
Tensile Elongation			

Yield [4]	9.0	%	ASTM D638
Yield	4.1	%	ISO 527-2/50
Fracture [5]	300	%	ASTM D638
Fracture	150	%	ISO 527-2/50
Flexural Modulus			
50.0mm span [6]	1100	MPa	ASTM D790
64.0mm span [7]	1400	MPa	ISO 178
Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength			ISO 179/1eA
-30°C [8]	4.9	kJ/m^2	ISO 179/1eA
23°C [9]	No Break		ISO 179/1eA
Notched Izod Impact			
23°C, 3.20 mm [10]	450	J/m	ASTM D256
-30°C [11]	5.6	kJ/m^2	ISO 180/1A
0°C [12]	No Break		ISO 180/1A
23°C [13]	No Break		ISO 180/1A
Unnotched Izod Impact [14] (23°C, 3.20 mm)	980	J/m	ASTM D4812
Instrumented Dart Impact [15]			ASTM D3763
-30°C, Energy at Peak Load	20.9	J	ASTM D3763
23°C, Energy at Peak Load	14.9	J	ASTM D3763
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load			
0.45 MPa, unannealed, 3.20mm	79.0	°C	ASTM D648
0.45 MPa, not annealed [16]	90.0	°C	ISO 75-2/B
1.8 MPa, unannealed, 3.20mm	49.0	°C	ASTM D648
1.8 MPa, not annealed [17]	57.0	°C	ISO 75-2/A
Vicat Softening Temperature	120	°C	ISO 306/A50
Injection	Nominal Value	Unit	
Drying Temperature	80.0 - 100	°C	
Drying Time	2.0 - 4.0	hr	
Rear Temperature	190 - 230	°C	
Middle Temperature	200 - 250	°C	
Front Temperature	210 - 270	°C	
Nozzle Temperature	210 - 270	°C	
Processing (Melt) Temp	210 - 270	°C	
Mold Temperature	15.0 - 60.0	°C	
Back Pressure	1.00 - 1.50	MPa	
NOTE			
1.	50 mm/min		
2.	Type 1, 50mm/min		
3.	Type 1, 50mm/min		
4.	Type 1, 50mm/min		

5.	Type 1, 50mm/min
6.	1.3 mm/min
7.	2.0 mm/min
8.	80*10*4mm, Cut
9.	80*10*4 mm, Cut
10.	63.5*12.7*3.2mm, Cut
11.	80*10*4mm, Cut
12.	80*10*4mm, Cut
13.	80*10*4mm, Cut
14.	63.5*12.7*3.2mm, Cut
15.	2.20 m/sec
16.	80*10*4mm, Cut
17.	80*10*4mm, Cut

Recommended distributors for this material

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