SABIC® PP PHC31-81

Polypropylene Impact Copolymer

Saudi Basic Industries Corporation (SABIC)

Message:

SABIC® PP PHC31-81 is a grade which combines high stiffness with good impact strength. Its excellent flow properties and narrow molecular weight distribution permits fast cycle-times and injection moulding of articles demanding low warpage and high dimensional stability. This grade is formulated with a combined processing and UV-stabilisation package. Typical applications are automotive components. It is also available in a general purpose additive package.
SABIC® PP PHC31-81 is a designated automotive grade.

General Information			
UL YellowCard	E111275-219030		
Additive	Processing Aid UV Stabilizer		
Features	Block Copolymer Fast Molding Cycle Good Dimensional Stability Good Flow Good Impact Resistance Good UV Resistance High Stiffness Low Warpage Narrow Molecular Weight Distribution		
Uses	Automotive Applications		
Forms	Pellets		
Processing Method	Injection Molding		
Physical	**Nominal Value**	**Unit**	**Test Method**
Specific Gravity	0.905	g/cm³	ASTM D792, ISO 1183
Melt Mass-Flow Rate (MFR) (230°C/2.16 kg)	15	g/10 min	ASTM D1238, ISO 1133
Molding Shrinkage			Internal Method
Flow : 24 hr	1.6	%	
24 hr	1.6	%	
Hardness	**Nominal Value**	**Unit**	**Test Method**
Rockwell Hardness (R-Scale)	104		ASTM D785
Shore Hardness (Shore D, Injection Molded)	65		ISO 868
Mechanical	**Nominal Value**	**Unit**	**Test Method**
Tensile Modulus			
1% Secant : Injection Molded [1]	1350	MPa	ASTM D638

Injection Molded	1300	MPa	ISO 527-2/1A/1
Tensile Strength			
Yield, Injection Molded [2]	25.0	MPa	ASTM D638
Yield, Injection Molded	25.0	MPa	ISO 527-2/1A/50
Tensile Elongation			
Yield, Injection Molded [3]	5.0	%	ASTM D638
Yield, Injection Molded	5.0	%	ISO 527-2/1A/50
Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength			ISO 179/1eA
-20°C, Injection Molded	5.0	kJ/m^2	
0°C, Injection Molded	7.0	kJ/m^2	
23°C, Injection Molded	11	kJ/m^2	
Notched Izod Impact			
-20°C, Injection Molded	50	J/m	ASTM D256A
0°C, Injection Molded	75	J/m	ASTM D256A
23°C, Injection Molded	100	J/m	ASTM D256A
-20°C, Injection Molded	5.0	kJ/m^2	ISO 180/1A
0°C, Injection Molded	7.0	kJ/m^2	ISO 180/1A
23°C, Injection Molded	11	kJ/m^2	ISO 180/1A
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load			
0.45 MPa, Unannealed	85.0	°C	ASTM D648
0.45 MPa, Unannealed [4]	80.0	°C	ISO 75-2/Bf
1.8 MPa, Unannealed	60.0	°C	ASTM D648
1.8 MPa, Unannealed [5]	55.0	°C	ISO 75-2/Af
Vicat Softening Temperature			
--	150	°C	ASTM D1525 [6]
--	76.0	°C	ASTM D1525 [7]
--	149	°C	ISO 306/A120
--	74.0	°C	ISO 306/B120

NOTE	
1.	5.0 mm/min
2.	50 mm/min
3.	50 mm/min
4.	testbar 80*10*4mm
5.	testbar 80*10*4mm
6.	Rate B (120°C/h), Loading 1 (10 N)
7.	Rate B (120°C/h), Loading 2 (50 N)

Recommended distributors for this material

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