

# SABIC® PP PHC31-81

## PP IMPACT COPOLYMER

### DESCRIPTION

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.

IMDS ID: 80775790

### TYPICAL PROPERTY VALUES

Revision 20220720

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
<b>POLYMER PROPERTIES</b>			
<b>Melt Flow Rate (MFR)</b>			
at 230 °C and 2.16 kg	15	dg/min	ISO 1133
<b>Density</b>	905	kg/m <sup>3</sup>	ISO 1183
<b>Mould shrinkage</b>			
24 hours after injection moulding <sup>(1)</sup>	1.6	%	SABIC method
<b>FORMULATION</b>			
<b>UV stabilized</b>	<input checked="" type="checkbox"/>	-	-
<b>Anti static agent</b>	<input type="checkbox"/>	-	-
<b>Nucleating agent</b>	<input type="checkbox"/>	-	-
<b>MECHANICAL PROPERTIES</b>			
<b>Tensile test</b>			
stress at yield	25	MPa	ISO 527-2 1A
strain at yield <sup>(2)</sup>	5	%	ISO 527-2 1A
tensile modulus <sup>(3)</sup>	1300	MPa	ISO 527-2 1A
<b>Izod impact notched</b>			
at 23 °C	11	kJ/m <sup>2</sup>	ISO 180/1A
at 0 °C	7	kJ/m <sup>2</sup>	ISO 180/1A
at -20 °C	5	kJ/m <sup>2</sup>	ISO 180/1A
<b>Charpy Impact Strength Notched</b>			
at 23 °C	12.5	kJ/m <sup>2</sup>	ISO 179/1eA
at 0 °C	8	kJ/m <sup>2</sup>	ISO 179/1eA
at -20 °C	5	kJ/m <sup>2</sup>	ISO 179/1eA
<b>Hardness Shore D</b>	65	-	ISO 868
<b>THERMAL PROPERTIES</b>			
<b>Heat deflection temperature <sup>(4)</sup></b>			
at 1.80 MPa (HDT/A)	55	°C	ISO 75
at 0.45 MPa (HDT/B)	80	°C	ISO 75
<b>Vicat Softening Temperature <sup>(5)</sup></b>			
at 10 N (VST/A)	149	°C	ISO 306
at 50 N (VST/B)	74	°C	ISO 306

- (1) All measurements on injection molded samples.
- (2) Speed of testing: 50 mm/min
- (3) Speed of testing: 1 mm/min
- (4) Flat wise ( testbar 80\*10\*4mm)
- (5) Temperature rate: 120°C/h

## STORAGE AND HANDLING

Avoid prolonged storage in open sunlight, high temperatures (<50 °C) and/or high humidity as this could well speed up alteration and consequently loss of quality of the material and/or its packaging. Keep material completely dry for good processing.

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