

# SABIC® PP PHC31

# PP IMPACT COPOLYMER

## **DESCRIPTION**

SABIC® PP PHC31 combines high stiffness with good impact strength. Its excellent flow properties and narrow molecular weight distribution allows fast cycle-times and injection moulding of articles demanding low warpage and high dimensional stability. Typical applications are pails, containers, crates & boxes and automotive components.

#### Health, Safety and Food Contact regulations:

Material Safety Data Sheets (MSDS) and Product Safety declarations are available on our Internet site http://www.SABIC.com. The product mentioned herein is in particular not tested and therefore not validated for use in pharmaceutical/ medical applications.

This grade material is UL registered under File E111275 (www.ul.com)IMDS ID: 80775790.

## **TYPICAL PROPERTY VALUES**

Revision 20241107

| PROPERTIES                      | TYPICAL VALUES | UNITS  | TEST METHODS |
|---------------------------------|----------------|--------|--------------|
| POLYMER PROPERTIES              |                |        |              |
| Melt Flow Rate (MFR)            |                |        |              |
| at 230 °C and 2.16 kg           | 15             | dg/min | ISO 1133     |
| Density                         | 905            | kg/m³  | ASTM D1505   |
| FORMULATION                     |                |        |              |
| Anti static agent               |                | -      | -            |
| Nucleating agent                |                | -      | -            |
| MECHANICAL PROPERTIES           |                |        |              |
| Tensile test                    |                |        |              |
| stress at yield                 | 25             | MPa    | ISO 527-2 1A |
| tensile modulus <sup>(1)</sup>  | 1300           | MPa    | ISO 527-2 1A |
| strain at yield <sup>(2)</sup>  | 5              | %      | ISO 527-2 1A |
| Izod impact notched             |                |        |              |
| at 0 °C                         | 7              | kJ/m²  | ISO 180/1A   |
| at 23 °C                        | 11             | kJ/m²  | ISO 180/1A   |
| at -20 °C                       | 5              | kJ/m²  | ISO 180/1A   |
| Charpy Impact Strength Notched  |                |        |              |
| at 0 °C                         | 8              | kJ/m²  | ISO 179/1eA  |
| at -20 °C                       | 5              | kJ/m²  | ISO 179/1eA  |
| at 23 °C                        | 12.5           | kJ/m²  | ISO 179/1eA  |
| Hardness Shore D                | 64             | -      | ISO 868      |
| THERMAL PROPERTIES              |                |        |              |
| Heat deflection temperature (3) |                |        |              |
| at 1.80 MPa (HDT/A)             | 55             | °C     | ISO 75       |
| at 0.45 MPa (HDT/B)             | 80             | °C     | ISO 75       |
| Vicat Softening Temperature (4) |                |        |              |
| at 10 N (VST/A)                 | 149            | °C     | ISO 306      |
| at 50 N (VST/B)                 | 74             | °C     | ISO 306      |



- (1) Speed of testing: 1 mm/min
- (2) Speed of testing: 50 mm/min
- (3) Flat wise (testbar 80\*10\*4mm)
- (4) 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.

## **DISCLAIMER**

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