







# SABIC® PP FPC45

PP IMPACT COPOLYMER FLOWPACT

# **DESCRIPTION**

This grade has been developed as a new member of the SABIC® PP FLOWPACT range dedicated to the rigid packaging market. It delivers a high top load performance (potential downgauging) with a superior stiffness / impact balance. It is nucleated and is characterized by a high crystallization temperature and excellent flow behavior. This grade is typically used by our customers for high-speed injection moulding and it enables very cost efficient processing on the basis of easy mould filling and very short cycle times. It has a very good antistatic performance with easy demoulding. Application: This material is typically used in rigid packaging applications for both food and non-food industries. This includes packaging for yellow fats, cheese spreads, dairy, frozen, chilled and ambient food, household chemicals, paints among others. It can be also used in several applications in the caps & closures industry as well in housewares. The grade has excellent heat deflection temperature making it may particularly be used for hot fill applications.

Health, Safety and Food Contact regulation: 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.

# TYPICAL PROPERTY VALUES

Revision 20210227

| PROPERTIES                                 | TYPICAL VALUES | UNITS  | TEST METHODS |
|--|----------------|--------|--------------|
| POLYMER PROPERTIES                         |                |        |              |
| Melt Flow Rate (MFR)                       |                |        |              |
| at 230 °C and 2.16 kg                      | 45             | dg/min | ISO 1133     |
| Density                                    | 905            | kg/m³  | ASTM D1505   |
| FORMULATION                                |                |        |              |
| Anti static agent                          | eq             | =      | ÷            |
| Nucleating agent                           |                | -      | -            |
| MECHANICAL PROPERTIES                      |                |        |              |
| Tensile test                               |                |        |              |
| tensile modulus <sup>(1)</sup>             | 1700           | MPa    | ISO 527-2 1A |
| strain at yield                            | 4              | %      | ISO 527-2 1A |
| stress at yield <sup>(2)</sup>             | 30             | MPa    | ISO 527-2 1A |
| Izod impact notched                        |                |        |              |
| at -20 °C                                  | 3.5            | kJ/m²  | ISO 180/1A   |
| at 0 °C                                    | 4.5            | kJ/m²  | ISO 180/1A   |
| at 23 °C                                   | 7              | kJ/m²  | ISO 180/1A   |
| Charpy Impact Strength Notched             |                |        |              |
| at 23 °C                                   | 7.5            | kJ/m²  | ISO 179/1eA  |
| at 0 °C                                    | 5.5            | kJ/m²  | ISO 179/1eA  |
| at -20 °C                                  | 3.5            | kJ/m²  | ISO 179/1eA  |
| THERMAL PROPERTIES                         |                |        |              |
| Heat deflection temperature <sup>(3)</sup> |                |        |              |
| at 0.45 MPa (HDT/B)                        | 100            | °C     | ISO 75       |
| at 1.80 MPa (HDT/A)                        | 60             | °C     | ISO 75       |
| Vicat Softening Temperature <sup>(4)</sup> |                |        |              |
| at 10 N (VST/A)                            | 150            | °C     | ISO 306      |
| at 50 N (VST/B)                            | 80             | °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**

Any sale by SABIC, its subsidiaries and affiliates (each a "seller"), is made exclusively under seller's standard conditions of sale (available upon request) unless agreed otherwise in writing and signed on behalf of the seller. While the information contained herein is given in good faith, SELLER MAKES NO WARRANTY, EXPRESS OR IMPLIED, INCLUDING MERCHANTABILITY AND NONINFRINGEMENT OF INTELLECTUAL PROPERTY, NOR ASSUMES ANY LIABILITY, DIRECT OR INDIRECT, WITH RESPECT TO THE PERFORMANCE, SUITABILITY OR FITNESS FOR INTENDED USE OR PURPOSE OF THESE PRODUCTS IN ANY APPLICATION. Each customer must determine the suitability of seller materials for the customer's particular use through appropriate testing and analysis. No statement by seller concerning a possible use of any product, service or design is intended, or should be construed, to grant any license under any patent or other intellectual property right.

