

SABIC® PP 46MNK45

PP IMPACT COPOLYMER

DESCRIPTION

SABIC® 46MNK45 is a phthalate free polypropylene impact copolymer grade suitable for both injection and compression molding of beverage closures. The main features of this grade are very good processability, good stiffness and impact resistance. This is a nucleated grade with slip and antistatic agent.

TYPICAL APPLICATIONS

SABIC® 46MNK45 can be used for production of beverage closures, housewares and industrial packaging etc.

TYPICAL PROPERTY VALUES

Revision 20230421

| PROPERTIES | TYPICAL VALUES | UNITS | TEST METHODS |
|---|----------------|-------------------|--------------|
| MECHANICAL | | | |
| Tensile Modulus, 50 mm/min | 1500 | MPa | ASTM D638 |
| POLYMER PROPERTIES | | | |
| Melt Flow Rate (MFR) | | | |
| @ 230°C & 2.16 kg load | 6 | g/10 min | ASTM D1238 |
| Density | | | |
| @ 23°C | 905 | kg/m ³ | ASTM D792 |
| MECHANICAL PROPERTIES ⁽¹⁾ | | | |
| Tensile strength | | | |
| @ Yield | 30 | MPa | ASTM D638 |
| Tensile Elongation | | | |
| @ Yield | 7 | % | ASTM D638 |
| Flexural Modulus | | | |
| (1% Secant) | 1400 | MPa | ASTM D790 A |
| Notched Izod Impact Strength at 23°C | 80 | J/m | ASTM D256 |
| Notched Izod Impact Strength at -20°C | 27 | J/m | ASTM D256 |
| Rockwell Hardness, R-Scale | 80 | - | ASTM D785 |
| THERMAL PROPERTIES | | | |
| Vicat Softening Point | 149 | °C | ASTM D1525 |
| Heat deflection temperature | | | |
| @ 455 kPa | 110 | °C | ASTM D648 |

(1) Based on injection molded specimens

PROCESSING CONDITIONS

Typical processing conditions for SABIC® 46MNK45 are Barrel temperature range: 200 - 250°C. Mold shrinkage: 1.2 - 2.0% depending on wall thickness and processing conditions. Mold temperature: normally 15 - 40°C, up to 65°C for thick parts.



STORAGE AND HANDLING

Polypropylene resin should be stored in a manner to prevent a direct exposure to sunlight and/or heat. The storage area should also be dry and preferably do not exceed 50°C. SABIC would not give warranty to bad storage conditions which may lead to quality deterioration such as color change, bad smell and inadequate product performance. It is advisable to process PP resin within 6 months after delivery.

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