SABIC® PP 500P

POLYPROPYLENE HOMOPOLYMER

DESCRIPTION

SABIC® PP 500P is a medium flow, multipurpose grade for extrusion and injection molding applications.

TYPICAL APPLICATIONS

If applied for extrusion 500P shows an excellent stretch ability and is therefore suitable for tapes and strapping, high tenacity yarns and carpet backing. It can also be used in ropes and twines, woven bags, flexible intermediate bulk containers, geotextiles and concrete reinforcements.

For thermoforming it shows a unique balance between transparency, impact resistance and thickness uniformity.

500P is also suitable for production of injection molded articles e.g. caps and closures and house ware products, where this grade shows a high stiffness, combined with a fair impact resistance and very good surface hardness.

TYPICAL PROPERTY VALUES

Revision 20211203

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
POLYMER PROPERTIES			
Melt Flow Rate (MFR)			
at 230 °C and 2.16 kg	3	dg/min	ISO 1133
Density	905	kg/m³	ASTM D1505
Molecular Weight Distribution	Broad	-	-
Isotacticity	Medium	-	-
FORMULATION			
Anti static agent	☐	-	-
Nucleating agent	☐	-	-
Gas fading stabilized	☐	-	SABIC method
MECHANICAL PROPERTIES			
Tensile test			
tensile modulus [1]	1550	MPa	ISO 527-2 1A
strain at yield	10	%	ISO 527-2 1A
stress at yield [2]	37	MPa	ISO 527-2 1A
Izod impact notched			
at 23 °C	3.5	kJ/m²	ISO 180/1A
Charpy Impact Strength Notched			
at 23 °C	4.5	kJ/m²	ISO 179/1eA
THERMAL PROPERTIES			
Heat deflection temperature			
at 0.45 MPa (HDT/B)	85	°C	ISO 75
at 1.80 MPa (HDT/A)	55	°C	ISO 75
Vicat Softening Temperature [3]			
at 10 N (VST/A)	152	°C	ISO 306
at 50 N (VST/B)	88	°C	ISO 306

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(1) Speed of testing: 1 mm/min
(2) Speed of testing: 50 mm/min
(3) Temperature rate: 120°C/h

PROCESSING CONDITIONS

Typical processing conditions for 500P are:

Barrel temperature range: 235 - 250°C

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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