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SABIC® PP 512MK46

POLYPROPYLENE IMPACT COPOLYMER FOR INJECTION MOLDING

DESCRIPTION

SABIC® PP 512MK46 is specially developed for producing injection molded articles. This grade contains nucleating and antistatic agents. It has high flow properties in combination with excellent impact / stiffness balance and excellent organoleptic properties.
SABIC® PP 512MK46 encompasses the following features: High top load strength & down gauging potential; Very good impact resistance; Excellent isotropic shrinkage performance (dimensional stability); High crystallization temperature and excellent flow behavior (lower cycle time); Clean product in combination of low / no odor & taste.

TYPICAL APPLICATIONS

SABIC® PP 512MK46 typically used in thin-walled packaging applications for both food and non-food industries; this includes packaging for frozen / chilled / ambient food, dairy products (e.g. butter, yoghurt, cream, cheese etc.). It can be also used in several applications in the housewares, appliances, toys, caps & closures and compounding.

TYPICAL PROPERTY VALUES

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
POLYMER PROPERTIES			
Melt Flow Rate			
at 230°C and 2.16kg	50	g/10 min	ASTM D1238
Density			
at 23°C	903	kg/m³	ASTM D792
MECHANICAL PROPERTIES (1)			
Tensile Strength at Yield	27	MPa	ASTM D638
Tensile Elongation at Yield	5	%	ASTM D638
Flexural Modulus (1% Secant)	1330	MPa	ASTM D790 A
Izod Impact Strength			
notched, at 23°C	59	J/m	ASTM D256
notched, at -20°C	38	J/m	ASTM D256
Rockwell Hardness, R-Scale (1)	98	-	ASTM D785
THERMAL PROPERTIES			
Vicat Softening Temperature	149	°C	ASTM D1525
Heat deflection temperature			
at 455kPa	110	°C	ASTM D648

(1) Based on injection molded specimens.

PROCESSING CONDITIONS

Typical processing conditions for 512MK46 are:

Barrel temperature range: 200 - 245°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.