

SABIC® PP 412MN40

PP IMPACT COPOLYMER

DESCRIPTION

SABIC® PP 412MN40 is a multi-purpose grade with good flow properties, combining stiffness and good balance in impact strength. The material has a very low tendency for warpage and is typically used for the production of thin wall packaging articles. Cycle times can be very short. It is formulated with a combined processing and antistatic additive package. This grade is widely applied in thin wall technical injection moulded articles and thin-walled containers, in particular where dimensional stability is important.

TYPICAL PROPERTY VALUES

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
POLYMER PROPERTIES			
Melt Flow Rate (MFR)			
at 230 °C and 2.16 kg	37	dg/min	ISO 1133
Density	905	kg/m³	ASTM D1505
FORMULATION			
Anti static agent	<input checked="" type="checkbox"/>	-	-
Nucleating agent	<input type="checkbox"/>	-	-
MECHANICAL PROPERTIES			
Tensile test			
tensile modulus ⁽¹⁾	1300	MPa	ISO 527-2 1A
stress at yield	25	MPa	ISO 527-2 1A
strain at yield ⁽²⁾	5	%	ISO 527-2 1A
Izod impact notched			
at 0 °C	6.5	kJ/m²	ISO 180/1A
at -20 °C	5	kJ/m²	ISO 180/1A
at 23 °C	8	kJ/m²	ISO 180/1A
Charpy Impact Strength Notched			
at -20 °C	5	kJ/m²	ISO 179/1eA
at 23 °C	11	kJ/m²	ISO 179/1eA
at 0 °C	7	kJ/m²	ISO 179/1eA
Hardness Shore D	63	-	ISO 868
THERMAL PROPERTIES			
Heat deflection temperature ⁽³⁾			
at 0.45 MPa (HDT/B)	85	°C	ISO 75
at 1.80 MPa (HDT/A)	55	°C	ISO 75
Vicat Softening Temperature ⁽⁴⁾			
at 10 N (VST/A)	150	°C	ISO 306
at 50 N (VST/B)	75	°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

