SABIC® PP PHC27

PP IMPACT COPOLYMER

DESCRIPTION

SABIC® PP PHC27 combines very high impact resistance, also at low temperatures, with a good stiffness and offers very good flow properties. Thanks to very low tendency to warp, it is typically used for injection moulding of crates & boxes, suitcase shells and automotive parts.

TYPICAL PROPERTY VALUES

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
POLYMER PROPERTIES			
Melt Flow Rate (MFR)			
at 230 °C and 2.16 kg	14	dg/min	ISO 1133
Density	905	kg/m³	ASTM D1505
FORMULATION			
UV stabilized	☐	-	-
Anti static agent	☐	-	-
Nucleating agent	☐	-	-
MECHANICAL PROPERTIES			
Tensile test			
strain at yield [1]	6	%	ISO 527-2 1A
stress at yield	21	MPa	ISO 527-2 1A
tensile modulus [2]	1000	MPa	ISO 527-2 1A
Izod impact notched			
at 0 °C	13	kJ/m²	ISO 180/1A
at -20 °C	9	kJ/m²	ISO 180/1A
Izod impact notched			
at 23 °C	No Break	kJ/m²	ISO 180/1A
Charpy Impact Strength Notched			
at 0 °C	15	kJ/m²	ISO 179/1eA
at -20 °C	8	kJ/m²	ISO 179/1eA
at 23 °C	60	kJ/m²	ISO 179/1eA
Charpy impact unnotched			
at 23 °C	No Break	kJ/m²	ISO 179/1eU
Hardness Shore D	60	-	ISO 868
THERMAL PROPERTIES			
Heat deflection temperature [3]			
at 0.45 MPa (HDT/B)	80	°C	ISO 75

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
at 1.80 MPa (HDT/A)	50	°C	ISO 75
Vicat Softening Temperature [4]			
at 10 N (VST/A)	145	°C	ISO 306
at 50 N (VST/B)	65	°C	ISO 306

(1) Speed of testing: 50 mm/min
(2) Speed of testing: 1 mm/min
(3) Flat wise (testbar 80*10*4mm)
(4) Temperature rate: 120°C/h