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SABIC® PP PCGR45

POLYPROPYLENE RANDOM COPOLYMER FOR INJECTION MOLDING

DESCRIPTION

SABIC® PP PCG grades for healthcare applications are produced under controlled conditions resulting in high product quality, consistency and a high level of purity.

SABIC® PP PCGR45 is a highly transparent polypropylene random copolymer with good antistatic properties. This grade combines improved aesthetics of the finished articles with low temperature processability and good organoleptic performance. Part aesthetics are not affected by the lower temperatures, providing for a broader operating window, enabling short cycle times. SABIC® PP PCGR45 results in excellent demoulding characteristics and has a good stiffness to impact ratio.

TYPICAL APPLICATIONS

SABIC® PP PCGR45 is typically used for injection moulding of housings for disposable 3-part syringes. Other applications demanding a high level of transparency and broad processing window are also possible. Compliance to regulations: SABIC® PP PCGR45 complies with the food contact regulations and the relevant monographs of the US & EP Pharmacopoeia.

TYPICAL PROPERTY VALUES

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
POLYMER PROPERTIES (1)			
Melt Flow Rate (MFR)			
at 230 °C and 2.16kg	45	g/10 min	ASTM D1238
Density			
at 23 °C	905	kg/m³	ASTM D792
MECHANICAL PROPERTIES (2)			
Tensile Properties			
Strength @ Yield	28	MPa	ASTM D638
Elongation @ Yield	13	%	ASTM D638
Flexural Modulus (1% Secant) (2)	1150	MPa	ASTM D790 A
Izod Impact Strength			
notched, at 23 °C	56	J/m	ASTM D256
Rockwell Hardness, R-Scale	85	-	ASTM D785
THERMAL PROPERTIES			
Vicat Softening Temperature	124	°C	ASTM D1525
Heat deflection temperature			
at 455kPa	71	°C	ASTM D648

(1) Typical values, not to be construed as specific limits
(2) Based on injection molded specimens

PROCESSING CONDITIONS

Typical processing conditions for PCGR45 are:

Barrel temperature range: 185 - 225°C.

Mold Shrinkage: 1.2 - 2.0% depending on wall thickness and processing conditions.

Mold Temperature: Normally in the range of 25 - 40°C.