SABIC® PET PCG 80

CRYSTALLINE POLYETHYLENE TEREPHTHALATE (PET)

DESCRIPTION

SABIC® PCG PET80 for healthcare applications is produced under controlled conditions resulting in high product quality, consistency and a high level of purity. PCG PET80 is a crystalline, high molecular weight thermoplastic polymer made by continues melt-phase polymerization process followed by solid-state polymerization. PCG PET80 is a specially formulated medical grade for pharma bottles and healthcare applications.

TYPICAL APPLICATIONS

PCG PET80 is especially suitable for the production of pharma bottles complies with the requirements laid down in the European Pharmacopoeia § 3.1.15, eight edition, 2015. PCG PET80 is suitable for producing containers and not for parenteral use.

TYPICAL PROPERTY VALUES

Revision 20181012

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
PHYSICAL PROPERTIES			
Intrinsic Viscosity	0.8 ± 0.02	dl/g	SABIC method
DEG Content	<1.5	% w/w	SABIC method
Crystalline Density (1)	<1390	kg/m³	SABIC method
Moisture Content (2)	<0.35	% w/w	SABIC method
POLYMER PROPERTIES			
Acetaldehyde	<1	ppm	SABIC method
Color (L)	89 ± 4.0	L-value	IRC 0051
Color (b)	-1.5 ± 2.0	b-value	IRC 0051
Dust Content	<0.01	% w/w	SABIC method
Bulk Density	838 ± 10	kg/m³	ASTM D1895

(1) Typical values; not to be construed as specification limits.

(2) At Equilibrium, Typical values; not to be construed as specification limits.

PROCESSING CONDITIONS

The PCG PET80 has to be dried to moisture content below about 30-40 ppm. The drying conditions typically used are 180 ºC for 5 hours; the dew point of the drying air should be at least -40 ºC. Typically, injection temperatures of 285 ºC may be used to get clear preforms. On addition of master batches for color bottles, it should be tested independently.

HEALTH, SAFETY AND FOOD CONTACT REGULATIONS

Do not use this SABIC product in all medical applications involving any of the following medical devices in accordance with the classification criteria and definitions as outlined in annex IX of the EU council directive on medical devices (93/42/EEC of 14 June 1993 including amendments):

1. Class IIB implantable medical devices and both short-term (not including transient use) and long term surgically invasive devices;
2. All medical devices in class III.

PCG PET80 is suitable for food contact application. Detailed information is provided in relevant Material Safety Datasheet and for additional specific information please contact SABIC local representative for certificate.

STORAGE AND HANDLING

PET resin should be stored in a manner to prevent a direct exposure to sunlight and/or heat. The storage area should also be dry with relative humidity below 50% and temperatures preferably do not exceed 50 ºC. 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 PET within 6 months after delivery.

DISCLAIMER

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