

BC 112

Crystalline Polyethylene Terephthalate (PET)

Product Description

BC 112 is a crystalline, high molecular weight thermoplastic polymer made by continuous melt-phase polymerization process followed by solid-state polymerization.

Characteristics

BC 112 is a specially formulated bottle grade PET that is characterized by High I.V., and low acetaldehyde. The High I.V. confers good mechanical properties; high burst strengths and reduced bottle distension after filling.

Typical Applications

BC 112 is especially suitable for the production of bottles for carbonated drinks. The high I.V. gives the bottle the extra mechanical strength required in hot countries due to the high pressures from carbonation. It can also be used for bottles for general packaging applications, e.g., edible oil & thermoformed packaging.

Typical Data

Properties	Units	Values ⁽¹⁾	Test Method
Intrinsic Viscosity	dl/g	0.84 ± 0.015	SABIC (IRC0041)
Acetaldehyde	ppm	≤ 1	SABIC (IRC0057)
Color (L)	-	89 ± 4.0	SABIC (IRC0051)
Color (b)	-	-1.5 ± 2.0	SABIC (IRC0051)
Melting range	°C	246 - 256	SABIC (IRC0053)
DEG content	% w/w	≤ 1.5	SABIC (IRC0055)
Crystalline density	kg/m ³	≤ 1390	SABIC (IRC0032)
Dust content	% w/w	≤ 0.01	SABIC (IRC0060)
Bulk Density	kg/m ³	838 ± 10	ASTM D 1895
Moisture content ⁽²⁾	% w/w	≤ 0.35	SABIC (IRC0050)

(1) Typical Values; not to be construed as specifications limits.

(2) At Equilibrium

Processing Conditions

The PET (BC 112) has to be dried to a moisture content below about 30-40 ppm. The drying conditions typically used are 180°C for 5 hours; the dew point of the drying air should be at least -40°C. Typically injection temperatures of 285°C may be used to get clear pre-forms with acetaldehyde level acceptable for colas and flavored drinks.

Food Regulation

BC 112 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 don't exceed 50°C. 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 resin within two years from production date.

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