



# SABIC® PET BC212

CRYSTALLINE POLYETHYLENE TEREPHTHALATE (PET)

## DESCRIPTION

BC212 is a crystalline, high molecular weight thermoplastic polymer made by continues melt-phase polymerization process followed by solid-state polymerization. BC212 is specially formulated bottle grade PET, 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

BC212 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 pressure from carbonation. It can also be used for bottles for non-carbonated and other packaging applications, e.g. edible oil & thermoformed packaging.

## TYPICAL PROPERTY VALUES

Revision 20181009

| PROPERTIES                         | TYPICAL VALUES | UNITS             | TEST METHODS |
|------------------------------------|----------------|-------------------|--------------|
| <b>PHYSICAL PROPERTIES</b>         |                |                   |              |
| Intrinsic Viscosity <sup>(1)</sup> | 0.84 ± 0.02    | dl/g              | SABIC method |
| DEG Content                        | <1.5           | Wt. %             | SABIC method |
| Crystalline Density                | <1390          | kg/m <sup>3</sup> | SABIC method |
| Moisture Content <sup>(2)</sup>    | <0.35          | Wt. %             | SABIC method |
| <b>POLYMER PROPERTIES</b>          |                |                   |              |
| 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          | Wt. %             | SABIC method |
| Bulk Density                       | 850 ± 10       | kg/m <sup>3</sup> | 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 PET (BC212) has to be dried to 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 maybe used to get clear preforms with acceptable acetaldehyde level for Colas and flavored drinks.

## FOOD REGULATION

BC212 is suitable for food contact application. Detail information 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 °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 within 6 months after delivery.



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