Ecology tackled from raw materials and containers

GLASEL Eco-Friendly Project vol.1

In response to increasing awareness of environmental and energy-related issues such as global warming and the depletion of oil reserves, GLASEL is focusing on containers made from eco-friendly materials to reduce the environmental burden as a project.

Plant-based plastics (biomass)

The focus is now on carbon-neutral* plant-based plastics (biomass), which impose a lower environmental burden, as substitutes for conventional petroleum-based plastics. GLASEL works with many types of eco-friendly plastics. In particular, bio-PE and bio-PET can be used in a similar manner to conventional PE and PET.

* Carbon-neutral
Plastics made from plant material are environmentally friendly because they do not theoretically result in net CO2 emissions even if they are incinerated on disposal, as the plants from which they are made absorb CO2 as they grow.

Bio-Polyethylene (bio-PE)

Greatly Reduced CO2 Emissions

If made from bio-PE, polyethylene moldings will be 96% biomass-derived. This is equivalent to an approximately 70%* reduction of CO2 (greenhouse gas) emissions compared with petroleum-based PE.

* Assessment of CO2 emissions from processes including bio-PE production, transport to Japan, use as containers and disposal by incineration.

Bio-Polyethylene Terephthalate (bio-PET)

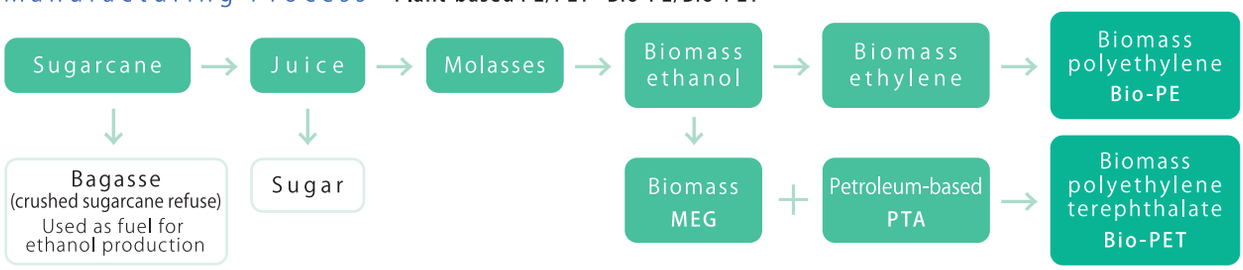
Reduced CO2 Emissions

If made from bio-PE, polyethylene moldings will be 30% biomass-derived. This is equivalent to an approximately 20%* reduction of CO2 (greenhouse gas) emissions compared with petroleum-based PE.

* Assessment of CO2 emissions from processes including bio-PET production, transport to Japan, use as containers and disposal by incineration.

Manufacturing Process

Plant-based PE/PET Bio-PE/Bio-PET



Product Characteristics

Items produced from bio-PE/PET are virtually the same in color tone as those from conventional PE/PET. Regarding heat resistance, impact resistance (drop test) and workability (e.g. printing), bio-PE/PET are similar to conventional PE/PET. Bio-PE/PET are odorless and pose no problem in chemical resistance properties.

◉ **Please always test the container's resistance to the contents.**

Compatible with Conventional Molding Process

Bio-PE and bio-PET can be molded using conventional molding machines and molds used with PE and PET.

Material Codes

The material codes for bio-PE and bio-PET are "PE" and "PET". If a product is at least 25% derived from biomass, it is permitted to bear the BP logo of the Japan BioPlastics Association (JBPA). Bio-PE and bio-PET qualify for the BP logo.

INFORMATION

◉ **Please contact us for details.**

GLASEL Eco-Friendly Project will be continued developing.
It will be featured in another issue vol.2.