

MERCOSUR/GMC/RES No. 25/99

GENERAL CRITERIA FOR PACKAGING OF SINGLE USE OF MULTI-LAYER POLYETHYLENE TEREPHTHALATE -PET- INTENDED FOR THE PACKAGING OF CARBONATED SOFT DRINKS.

1. General conditions and criteria for the evaluation of multilayer polyethylene terephthalate -PET- packaging for carbonated soft drinks and its manufacturing process.

2. The multilayer PET packaging must meet the health requirements established in this Code and must be compatible with the drink they are going to contain. These packaging must be authorized/approved by the Competent Health Authority in advance, following established procedures, stating that they are multilayer packaging for single use.

In addition, they must not release foreign substances to the composition of the plastic itself that constitutes the recycled intermediate layer, in quantities that would cause a significant risk to human health or an unacceptable change of the sensory characteristics of the packaged products.

3. Considered:

3.1. Multilayer PET container: container obtained by the co-injection - blowing process, consisting of an outer layer of virgin PET, an intermediate layer of recycled PET and an inner "functional barrier" layer of virgin PET.

3.2. Post-consumer PET: PET material from post-consumer returnable food packaging and non-returnable foodstuffs.

3.3. Industrial discard PET: obtained from preforms or from unused packaging.

3.4. Manufacturing process of multilayer PET bottles: this is the process that involves the two stages as described below:

Stage A: it consists of the recovery and decontamination of post-consumer and industrial discard PET by means of the following unitary operations: selection, milling of the PET collected, washed, dried and crystallization of the flakes.

Stage B: manufacture of multilayer PET bottles from recycled PET and virgin PET flakes.

It is understood that stages A and B can be carried out by a single company or that the industry that manufactures multilayer packaging or their preforms can buy recycled PET flakes from third parties, provided that the quality of the finished product is guaranteed.

4. Checking that stage A generated dry flakes of recycled PET suitable for the manufacture of preforms compatible with their use in the manufacture of multilayer PET packaging, must be verified through the following determinations, whose limits and methodology are established in the corresponding regulations:

4.1. pH of the aqueous extract.

4.2. soluble in hydrochloric acid.

4.3. ashes.

4.4. content of volatiles.

4.5. intrinsic viscosity.

5. Authorization of recycled PET flake suppliers for multilayer PET packaging for single use for carbonated soft drinks and the approval of the process used by the company are the responsibility of the Competent Health Authority which at its discretion may inspect the establishment. These companies will be required to have:

5.1. Facilities and equipment suitable for the preparation and processing of the post-consumer and industrial discard PET.

5.2. Staff specifically trained to act in all phases of the process.

- 5.3. Post-consumer PET from recyclable material collection systems that guarantee acceptable levels of physical and chemical contamination of the material, generating flakes in accordance with item 4. of this article.
 - 5.4. Written procedures and their application logs on good manufacturing practices.
 - 5.5. Detailed flowchart of the process and monitoring system of the latter.
 - 5.6. Recording of source and identification of the post-consumer and industrial discard PET.
 - 5.7. Recording of the results of the process control.
 - 5.8. Recording of the destination of the batches of their production.
6. Authorization of the producer establishments of recycled multilayer PET single use packaging for carbonated soft drinks and the approval of the process used by the company are the responsibility of the Competent Health Authority which at its discretion may inspect the establishment. These companies will be required to have:
- 6.1. Facilities and equipment suitable for the manufacture of multilayer PET packaging.
 - 6.2. Staff specifically trained to act in all phases of the manufacturing process.
 - 6.3. Written procedures and their application records on good manufacturing practices.
 - 6.4. Detailed flowchart of the process indicating the critical points of health risk and the monitoring system for this.
 - 6.5. Control procedure of the manufacturing process of multilayer PET packaging that allow validation of this.
 - 6.6. Recording of the results of the process control.
 - 6.7. Recording of the results of the thickness control of inner (functional barrier), and intermediate (recycled) layers of the packaging and, of the evaluation of the uniformity of the layers.
 - 6.8. Recording of the destination of the batches of their production.
 - 6.9. Records of the number of industrial discards generated in production and destination of this.
7. The multilayer PET packaging must meet the following specific requirements:
- 7.1. The thickness of the functional barrier layer must be greater than 25 microns.
 - 7.2. The thickness of the recycled PET layer must be less than 200 microns.
 - 7.3. The useful life of the packaged product should not be longer than one year.
 - 7.4. They should only be used in filling and storage conditions at ambient temperature or lower.
 - 7.5. They should only be used to contain carbonated soft drinks.
8. The determinations of thickness and the evaluation of the uniformity of the layers must be carried out in several sections taken from different areas of the container, at least in the section with the smallest thickness according to its design.
The specimens will be cut with a sharp blade in order to avoid, as much as possible, deformations in the cutting region.
Thickness measurements and evaluation of the uniformity of the layers will be carried out with the appropriate optical instrument.
9. In the labeling of products packaged in multilayer PET bottles, in addition to what is established by the legislation in force, the following expression must be included: "CONTAINER FOR THE EXCLUSIVE USE OF CARBONATED SOFT DRINKS".