

## Committee of Experts on the Transport of Dangerous Goods and on the Globally Harmonized System of Classification and Labelling of Chemicals

1 December 2022

### Sub-Committee of Experts on the Transport of Dangerous Goods

#### Sixty first session

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Item 6 (c) of the provisional agenda

#### Miscellaneous proposals for amendments to the Model Regulations on the Transport of Dangerous Goods: portable tanks

## Amending the definition of recycled plastics material

### Transmitted by the expert from Belgium and by the International Confederation of Plastics Packaging Manufacturers (ICPP) and the International Confederation of Intermediate Bulk Container Associations (ICIBCA)

#### Introduction

1. Based on the discussions of 2022/69 transmitted by the International Confederation of Plastics Packaging Manufacturers (ICPP) and the International Confederation of Intermediate Bulk Container Associations (ICIBCA) and of ST/SG/AC.10/C.3/2022/71 transmitted by Belgium together and the comments provided, a revised proposal is suggested. This revised proposal is based on proposal 2 in ST/SG/AC.10/C.3/2022/71.

2. The following amendments to proposal 2 in document ST/SG/AC.10/C.3/2022/71 were introduced:

- The change of the wording “plastics products” to “plastics material” to use a more general wording which emphasizes that any plastics material could be recycled.
- The addition of the wording “or from other plastics material” to emphasize that the definition of recycled plastics material is not limited to used industrial packagings or other plastics packagings, but encompasses any plastics material.
- The addition of the wording “which is of homogeneous composition” to clarify more that a batch of recycled plastics material has properties within the required specification range. In addition it promotes harmonised interpretation of this “batch” terminology.
- The addition of the wording “prior use” to expand the existing wording “prior contents” as the definition has been broadened to include any plastics material and only packagings can have contents. If the prior use of any plastics material might reduce the capability of new packagings produced using that material, this prior use should be taken into account.
- The change of the wording “packagings or IBCs” to “packagings, including IBCs” to be consistent with existing wording in the Model Regulations.
- The addition of the “or IBC” and “or IBCs” as the quality assurance programme and the mechanical design type tests for packagings and IBCs are different.
- The deletion of the newly introduced note 1, as this text was considered regulatory text, which would not be appropriate to put in a note.

- The change of the wording “tensile yield strength” to “tensile property” as the tensile yield strength is not always easy to measure for all types of plastics and this would allow to measure another tensile property depending on the type of the plastics.
  - The rearrangement of the wording “melt flow rate, density, and tensile yield strength” for clarification purposes.
3. To modernize the prescriptions on the use of recycled material in the Model Regulations, taking into account the current technological development and the work of the ISO working group on the revision of standard ISO 16103:2005, it is proposed to amend the definition of recycled plastics material. The Sub-Committee is invited to consider the following proposal.

## Proposal

4. It is proposed to amend in 1.2.1 the definition of recycled plastics material as follows (new text is underlined, deleted text stricken-through):

“*Recycled plastics material* means material recovered from used industrial packagings or from other plastics material that has been ~~cleaned~~ pre-sorted and prepared for processing into new packagings, including IBCs. The specific properties of the recycled material used for production of new packagings, including IBCs, shall be assured and documented regularly as part of a quality assurance programme recognized by the competent authority. The quality assurance programme shall include a record of proper pre-sorting and verification that each batch of recycled plastics material, which is of homogeneous composition, ~~has the proper melt flow rate, density, and tensile yield strength~~, is consistent with that the material specifications (melt flow rate, density, and tensile property) of the design type manufactured from such recycled material. This necessarily includes knowledge about the ~~packaging material~~ plastics material from which the recycled plastics have been derived, as well as awareness of the prior use, including prior contents, of ~~those packagings~~ the plastics material if ~~those prior contents~~ that prior use might reduce the capability of new packagings, including IBCs, produced using that material. In addition, the packaging or IBC manufacturer's quality assurance programme under 6.1.1.4 or 6.5.4.1 shall include performance of the appropriate mechanical design type tests in 6.1.5 or 6.5.6 on packagings or IBCs, manufactured from each batch of recycled plastics material. In this testing, stacking performance may be verified by appropriate dynamic compression testing rather than static load testing.

*NOTE: ISO 16103:2005 “Packaging – Transport packages for dangerous goods – Recycled plastics material”, provides additional guidance on procedures ~~to be followed~~ which may be followed in approving the use of recycled plastics material. These guidelines have been developed based on the experience of the manufacturing of drums and jerricans from recycled plastics material and as such may need to be adapted for other types of packagings, IBCs and large packagings made of recycled plastics material.”*