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

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

#### Sixty-fifth session

Geneva, 25 November-3 December 2024

Item 6 (b) of the provisional agenda

**Miscellaneous proposals for amendments to the  
Model Regulations on the Transport of Dangerous Goods:  
packagings, including the use of recycled plastics material**

### **Use of recycled plastics material for flexible intermediate bulk containers**

**Transmitted by the expert from Belgium\***

#### **Introduction**

1. At the sixty-second and sixty-fourth session of the Sub-Committee, Belgium introduced documents [ST/SG/AC.10/C.3/2023/27](#) and [ST/SG/AC.10/C.3/2024/47](#) on the use of recycled plastics material for the production of flexible intermediate bulk containers (fIBCs). In these documents it was highlighted that although the general principles for the use of recycled plastics material (RPM) for packagings and IBCs had been thoroughly discussed and amended during the previous biennia, little consideration had been given to the use of RPM for fIBCs.

2. In these documents it was recalled that prototype testing had shown that fIBCs made from recycled plastics material, used for non-dangerous goods, can have the same quality in terms of tensile strength and weight as well as safety levels as fIBCs made from virgin material (see also [ST/SG/AC.10/C.3/2020/44/Rev.1](#), paragraph 6). In addition, fIBC experts recalled that the fIBC design and quality of the stitching are the most important factors determining the overall fIBC strength and quality rather than the actual material they are made of. Lastly, it was highlighted that fIBCs are only allowed to contain solid dangerous goods. Consequentially, effects related to the transport of liquids such as permeation that may adversely impact the strength and quality of the packagings and IBCs, play only a minor role for fIBCs.

3. Taking into account that fIBCs still need to pass the performance tests as indicated in 6.5.6 of the *Model Regulations*, it seems reasonable that allowing the use of RPM for the production of fIBCs will have no impact on transport safety. To this end, Belgium had

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\* A/78/6 (Sect. 20), table 20.5.



proposed during the previous sessions to amend the paragraphs on the material of fIBCs to specify that recycled material is allowed.

4. As written in the report of the sixty-fourth session of this Sub-Committee, most experts supported this proposal in principle, but several comments were made on the proposed text and Belgium was invited to bring forward a revised proposal.

5. As already explained in document [ST/SG/AC.10/C.3/2024/47](#), it was believed that the term suitable plastics material does not preclude the use of recycled plastics material. As such, adding a reference to ‘recycled material’ is considered sufficient to clarify that RPM may be used. However, since paragraph 6.5.5.2.2 of the *Model Regulations* is not only applicable to plastics material and to leave the scope of this paragraph unchanged, no reference is made to “plastics” or the definition of RPM in 1.2.1.

6. It was also pointed out that the current provisions on the material to use for the production of fIBCs are distributed over two different paragraphs (6.5.5.2.2 and 6.5.5.2.8). It was suggested to combine these so that the material requirements are all in one paragraph. As such, besides clarifying the fact that using recycled material is allowed for fIBCs, this proposal also intends to combine the requirements for the source material of fIBCs in one paragraph.

7. In document [ST/SG/AC.10/C.3/2024/47](#) it was proposed to add the REC-mark also to fIBCs made from RPM as is required for rigid plastics IBCs and composite IBCs with a plastics inner receptacle. However, it was explained that the manufacturers of fIBCs receive their source-material in the form of treads from which they have no clear view on the used material. As such, requiring the REC-mark would place a substantial burden on these manufacturers.

8. In addition, in document informal document INF.15 (sixty-fourth session) the added value of the REC-mark in general was questioned.

9. With the explanation about the knowledge on the origin of the source material for fIBCs, the technological progress as well as the ongoing revision of ISO 16106 in mind, it is not proposed to add the REC-mark for fIBCs made from RPM.

## Proposals

### Proposal 1

10. Amend 6.5.5.2.2 to read as follows (new text underlined, ~~deleted text stricken through~~):

“Bodies shall be manufactured from suitable materials. The strength of the material and the construction of the flexible IBC shall be appropriate to its capacity and its intended use. Bodies shall be manufactured from suitable materials. Recycled material may also be used in the manufacture of fIBCs. No material recovered from previously used receptacles or parts thereof may be used for the manufacture of IBC bodies. Production residues or scrap from the same manufacturing process may be reused in the manufacture of IBC bodies.”

### Proposal 2

11. Amend 6.5.5.2.8 to read as follows (new text underlined, ~~deleted text stricken through~~):

“~~No material recovered from used receptacles shall be used in the manufacture of IBC bodies. Production residues or scrap from the same manufacturing process may, however, be used.~~ Component parts such as fittings and pallet bases may be reused provided such components have not in any way been damaged in previous use.”

## **Sustainable Development Goals**

12. This proposal is linked to Sustainable Development Goal 12 ‘Ensure sustainable consumption and production patterns’ and more specifically its target 12.5 ‘By 2030, substantially reduce waste generation through prevention, reduction, recycling and reuse.’

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