Informative document

Deceptive Packaging
WELMEC
European cooperation in legal metrology

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Background

At the 28th WELMEC Committee meeting resolution 36 was made which “Instructed WG6 to update the document on deceptive packaging to make it an informative document.” The original document had been produced and agreed by WG6-Prepackages in 2009 and provided best practice at that time to avoid packaging being deceptive.

The OIML recommendations 79 and 87 on prepackages have been used to produce best practice on some points that are not specified in the Directives, where the OIML requirements do not align with those in the Directives these are referred to in ‘Notes’. The OIML recommendations have been recently published.¹

It is in the nature of people that they buy products not only by reference to the quantity declaration on the prepackages but also by reference to the outer shape and size of those prepackages. Therefore, to ensure that consumers are not misled, firstly it is necessary to have, in parallel to the labelling of the quantity, a requirement that prepackages are designed and filled in such a manner that they do not appear to contain a larger quantity than is actually the case. Secondly, adherence to these principles will ensure fair competition for the manufacturers. Additionally if these general principles for the design of prepackages are observed the objectives of the Directive 94/62/EC on packaging and packaging waste can also be met.

Directive 2007/45/EC on prepackages envisages appropriate implementation of Directive 98/6/EC on unit pricing of prepackages² and this latter information will empower consumers to make value for money decisions³. However the Directive on unit prices is just one of the means for protecting consumers.

Studies ordered by the European Commission show that, in general, the unit price information is neither used nor understood by consumers. What is more, it is not applied at all points of sale and, for certain products, is an unsatisfactory and sometimes misleading method of providing the information consumers need to make properly informed purchasing decisions. Therefore it should not be considered as ensuring protection of consumers on its own⁴.

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² Directive 98/6/EC of 16 February 1998 on consumer protection in the indication of the prices of products offered to consumers
³ European Commission report on the application of the pre-packaging legal framework, SWD(2016) 219,
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1 Legal requirements
The following are the current legislative requirements in Europe that are relevant when considering packaging.

1.1 Regulation (EU) 1169/2011 – Food information

1.1.1 The food information to consumer regulations relates to the labelling, presentation and advertising of foodstuffs

Article 7, Fair information practices,

1. Food information shall not be misleading, …

4. Paragraphs 1, 2 and 3 shall also apply to: …

(b) the presentation of foods, in particular their shape, appearance or packaging, the packaging materials used, the way in which they are arranged and the setting in which they are displayed.

1.2 Directive 2005/29/EC6 - Unfair commercial practices

"Article 5 Prohibition of unfair commercial practices
1. Unfair commercial practices shall be prohibited.
2. A commercial practice shall be unfair if:"

(a) it is contrary to the requirements of professional diligence, and

(b) it materially distorts or is likely to materially distort the economic behaviour with regard to the product of the average consumer7 whom it reaches or to whom it is addressed, or of the average member of the group when a commercial practice is directed to a particular group of consumers. “

“Article 6 Misleading actions
1. A commercial practice shall be regarded as misleading if it contains false information and is therefore untruthful or in any way, including overall presentation, deceives or is likely to deceive the average consumer, even if the information is factually correct, in relation to one or more of the following elements, and in either case causes or is likely to cause him to take a transactional decision that he would not have taken otherwise:

(a) the existence or nature of the product;

(b) the main characteristics of the product, such as its availability, benefits, risks, execution, composition, accessories, after sale customer assistance and complaint handling, method and date of manufacture or provision, delivery, fitness for purpose, usage, quantity, specification, geographical or commercial origin or the results to be expected from its use, or the results and material features of tests or checks carried out on the product;”

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7 Cidrerie Ruwet SA v Cidre Stassen SA and HP Bulmer Ltd, Case C-3/99 (document 61999J0003) at point 53, defines the average consumer as „reasonably well informed and reasonably observant and circumspect“
**Directive 2006/114/EC** - Misleading advertising

“Article 3 In determining whether advertising is misleading, account shall be taken of all its features, and in particular of any information it contains concerning:

(a) the characteristics of goods or services, such as their availability, nature, execution, composition, method and date of manufacture or provision, fitness for purpose, uses, quantity, specification, geographical or commercial origin or ...

“Article 5 1. Member States shall ensure that adequate and effective means exist to combat misleading advertising and for the compliance with the provisions on comparative advertising in the interests of consumers as well as competitors and the general public. Such means shall include legal provisions under which persons or organizations regarded under national law as having a legitimate interest in prohibiting misleading advertising or regulating comparative advertising may:

(a) take legal action against such advertising; and/or
(b) bring such advertising before an administrative authority competent either to decide on complaints or to initiate appropriate legal proceedings.”

1.3 Directive 94/62/EC – Packaging and packaging waste

“Article 1 paragraph 2: To this end this Directive lays down measures aimed, as a first priority, at preventing the production of packaging waste and, as additional fundamental principles, at reusing packaging, at recycling and other forms of recovering packaging waste and, hence, at reducing the final disposal of such waste.”

Specific information see for example the European Standard EN 13428 “Packaging - Requirements specific to manufacturing and composition - Prevention by source reduction”

1.4 National Legislation

National regulations exist for example in Belgium, Germany and Slovakia.

Remark: It should be noted that an EC regulation shall have general application. It shall be binding in its entirety and directly applicable in all Member States.

2 OIML Recommendations

2.1 OIML R79 “Labeling requirements for prepackages”

“6 Misleading practices
6.2 Fill level
6.2.1 A prepackage shall be filled in such a manner that a purchaser may not reasonably be misled with respect to the quantity of the product it contains, taking into consideration any recognized and accepted production practices that may be necessary for the manufacturer or packer.

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8 DIRECTIVE 2006/114/EC OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 12 December 2006 concerning misleading and comparative advertising
11 OIML R079, edition 2015, Labelling requirements for prepackages
6.2.2 If a purchaser cannot fully view the product in a prepackage, it shall be considered to be filled and shall be misleading if it contains excessive non-functional slack fill that is not required by any production process.

NOTE 1: Slack fill is the difference between the capacity of the packaging material and the volume of the product it contains.

NOTE 2: Slack fill may be necessary for the following reasons which should not be regarded as misleading:
   a) Protection of the product;
   b) The requirements of machines used for enclosing the contents of the prepackage;
   c) Unavoidable product settling during shipping and handling; and
   d) The need for a prepackage to perform a specific function (e.g. where packaging plays a role in the preparation or consumption of a food) where such a function is inherent in the nature of the product and is clearly communicated to consumers.

6.2.3 The fill level of aerosol dispensers shall be in accordance with national legislation or recognised industry standards specified in national legislation.

2.2 OIML R 87 “Quantity of product in prepackages”\textsuperscript{12}

Annex E Prohibition of misleading prepackages

“E.1 General requirements: A prepackage may not have a shape, size or any feature that may mislead or deceive a consumer as to the actual quantity contained in such prepackage. This includes a false bottom, sidewalls, lid or covering. A prepackage may not be constructed or filled in such a way that may mislead or deceive a consumer.

E.2 Complete filling: A prepackage may not be partially filled in such a way that may deceive a consumer unless the difference between the actual volume of the packing material and the volume of the product it contains (slack fill) is required in the production process. If a consumer cannot fully view the product in a prepackage it may be considered to be filled. A prepackage with excessive non-functional slack fill (slack fill that is required by any production process) is considered to be a misleading one.

E.3 Functional slack fill: Reasonable slack fill may serve a necessary function for the following reasons which should not be regarded as misleading:
   a) protection of the product;
   b) the requirements of machines used for enclosing the contents of the prepackage;
   c) unavoidable product settling during shipping and handling; and
   d) the need for the prepackage to perform a specific function (e.g. where packaging plays a role in the preparation or consumption of a food), where such a function is inherent in the nature of the product and is clearly communicated to consumers.

E.4 Aerosol dispensers: The fill level of aerosol dispensers may be in accordance with national requirements or recognised industry standards specified in national legislation.

2.3 OIML D9 “Principles of Metrological Supervision”\textsuperscript{13}

5.1: “The aim of this area of metrological supervision is to determine whether the application of quantity and markings are in accordance with the legislation in the following fields:
The process includes checking that:
   • the ratio between the contents and the volume of the package is adequate (to avoid “deceptive packages”)."

\textsuperscript{12} OIML R87, edition 2016, Quantity of product in prepackages
\textsuperscript{13} OIML D 9, edition 2004, Principles of metrological supervision
3 National Requirements

Some member states have national requirements in law or in standards, and so there is no consistent requirement throughout member states. This section highlights those known to competent departments relating to deceptive packaging.

3.1 Declaration of Quantity

3.1.1 The declaration of the quantity of product in mass or volume on the package does not prevent a prepackage of being deceptive. This also applies to length, area or the number of items in a prepackage.

3.2. Deception by design

3.2.1 Restricted view of the product:
It is misleading if the design of the prepackage is such that the package suggests a larger quantity than it actually contains (e.g. by hollows, double walls, outsized stoppers, and concave bottoms when they are not justified from safety reasons like high pressure in the containment.

Fig. 1: False spaces

3.2.2 Additional lids
Additional (second) lids are allowed, e.g. where required to improve the shelf-life of the product. It is not permitted to increase the size of the package simply by using an additional lid that is unnecessarily deep.

3.2.3 Stopper (examples closures, cork, lid)
If there is a clear difference in shape or colour between the stopper and the rest of the prepackage then it may not be a deceptive package provided that
a) its size is essential for the function of the stopper
b) the mechanism is not designed larger than necessary
c) the fill level is visible

Fig. 2: Conditions for permissibility of large stoppers

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14 D Baumgarten "Fertigpackungspraxis 4 – Mogelpackungen" B Behr’s Verlag Hamburg 1980
3.3 Inadmissible free spaces

3.3.1 For an assessment of whether or not a non-clear transparent package contains excessive free space, a calculation should be carried out. If applicable the minimum filling ratio should be calculated by the principles of DIN 55540 “Testing of packaging; determining the filling ratio of standard capacity prepacks; prepacks whose contents are indicated by weight”.

3.3.2 If it is not possible to use DIN 55540 a package consisting a non-transparent container should be examined in more detail if the free space is greater than 30% of the volume of the prepackage. Consideration should be given as to whether or not the free space results from the nature of the product or is the result of an unavoidable technical reason. If it is not found to be the case, then a package in a non-transparent container with a free space greater than 30% should be rejected.

Comment 1: For products like salt and sugar that are easy to fill the filling level should be close to one hundred percent.
Comment 2: In the case of the bottling of liquids a technical reason for instance might be the need for a small free head space because of the frothing liquid. This may also be necessary for safety reasons as if the temperature increases the pressure inside of the bottle must be clearly lower than the bursting pressure of the bottle.

**Fill level**
If the fill level is clearly visible from all sides, the package is not likely to be deceptive.

3.4 Reduction of content

3.4.1 If the quantity in a package (the nominal quantity) is reduced by the packer it is important that the consumer is not misled in any way. Consumers expect larger packages to contain more than smaller packages\(^{15}\) \(^{16}\). Reducing the quantity in a prepackage compared with the previous nominal quantity suggests that the package is a deceptive package if:

\begin{itemize}
  \item[a)] the free space in the prepackage is not reduced by a similar volume, or
  \item[b)] the free space is reduced by the same percentage, but the dimensions of the side of the prepackage that is likely to be presented on the shelf (most the principal display panel) are maintained.
\end{itemize}

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\(^{15}\) D. Lennard, V.-W. Mitchell, P. McGoldrick and E. Betts: "Why consumer under-use food quantity indicators" (Int. Rev. of Retail. Distribution and Consumer Research Volume 11:2, April 2001, pp. 177 - 199)

This is also true when other filling ratios are maintained.

### 3.5 Multipacks, secondary packaging

3.5.1 Prepackages where there is more than one primary package, such as in a multipack or a collection of prepackages, the secondary packaging is also subject to this guideline.

### 3.6 Aerosols\(^\text{17}\)

For safety reasons the volume of the liquid phase at 50 °C must not exceed 90 % of the net capacity.’ This is supported by the European Aerosol Federation document FEA 422, 03/2008, “Filled aerosol packs – Standard fill levels”

### 3.7 Cosmetics (creams)

The ratio of the volume of tins, cups or comparable containments to the nominal volume should not be greater than\(^\text{18}\):

<table>
<thead>
<tr>
<th>Nominal quantity in ml or grams</th>
<th>Ratio of volume</th>
</tr>
</thead>
<tbody>
<tr>
<td>10 up to, but not including, 25</td>
<td>3 : 1</td>
</tr>
<tr>
<td>25 to 50</td>
<td>2.5 : 1</td>
</tr>
<tr>
<td>More than 50</td>
<td>2 : 1</td>
</tr>
</tbody>
</table>

### 3.8 Boxes for tubes

There is a standard\(^\text{19}\) that requires that the fold in a tube is positioned diagonally in the box.

Fig. 3: Parallel and diagonal insertion of tubes e.g. for toothpaste in boxes

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\(^{18}\) in chapter IV.2 §43 (2) MessEG H. Richtlinie zur Gestaltung von Fertigpackungen mit Körperpflegemittel (page 121).

\(^{19}\) DIN 32-3 “Packaging; means of packaging for pre-packages; determination of measures for boxes for tubes”
4 Example of Trade Code of Practice

As an example, here is an extract from the UK "Code of Practise for optimising packaging and minimising waste"20 by The Industry Council for Research on Packaging and the Environment (INCPEN)21 is reported:

"2 HONESTY IN PRESENTATION

Consumer packaging must not be designed to give a false impression of the nature, quantity or quality of the contents.

2.1 Container size
Packaging should be of the optimum size, strength and performance, and in accordance with the Essential Requirements.

2.2 Double-skinned containers
Unless there is a clear technical justification, double-skinned containers should not be used. A significantly smaller net volume concealed within an apparently larger outer dimension is not acceptable.

2.3 Headspace
With some products and processes, there is a need for packaging to have a headspace in order to allow for changes in density (e.g. settlement) or volume (e.g. as temperatures change). This should be kept to a minimum.

2.4 Environmental claims
Any environmental claim made on the packaging must be capable of being substantiated. It should be in accordance with the Government's Green Claims Code. Any claim must recognise that the packaging is part of the product manufacture, delivery and use system, and the claim must be valid in the context of the entire system.

2.5 Gifts / luxury items
When a product is conceived as a gift or luxury item, it is recognised that the packaging will reflect the presentational nature of the product and may be more elaborate than functionally necessary, but this does not mean that it should be excessive."

20 http://www.incpen.org/resource/data/incpen1/docs/Packaging%20Innovations20160711.pdf
21 INCPEN website at http://incpen.org/