

**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

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Item 6 (b) of the provisional agenda

**Miscellaneous proposals for amendments to the Model**

**Regulations on the Transport of Dangerous Goods:  
packagings**

**Comments on ST/SG/AC.10/C.3/2018/34**

**Transmitted by the Stainless Steel Container Association  
(SSCA)**

**Proposal(s)**

1. Amend the table in 6.5.2.2.1 by deleting “minimum” in the third row under “Additional marks”, as follows:

[“Body material and its ~~minimum~~ thickness in mm”]

2. **Amend** 6.5.5.1.6., as follows:

[“6.5.5.1.6 *Minimum wall thickness*

(a) For metal IBC with a capacity more than 1.500 litres the minimum wall thickness apply.

(ab) For a reference steel having a product of  $R_m \times A_o = 10\ 000$ , the wall thickness shall not be less than:

Capacity (C) in litres	Wall thickness (T) in mm			
	Types 11A, 11B, 11N		Types 21A, 21B, 21N, 31A, 31B, 31N	
	Unprotected	Protected	Unprotected	Protected
$C \leq 1000$	2.0	1.5	2.5	2.0
$1000 < C \leq 2000$	$T = C/2000 + 1.5$	$T = C/2000 + 1.0$	$T = C/2000 + 2.0$	$T = C/2000 + 1.5$
$2000 < C \leq 3000$	$T = C/2000 + 1.5$	$T = C/2000 + 1.0$	$T = C/1000 + 1.0$	$T = C/2000 + 1.5$
$1500 < C < 3000$	$T = C/2000 + 1.5$	$T = C/2000 + 1.0$	$T = C/1000 + 1.0$	$T = C/2000 + 1.5$

where:  $A_o$  = minimum elongation (as a percentage) of the reference steel to be used on fracture under tensile stress (see 6.5.5.1.5);

(bc) For metals other than the reference steel described in (a), the minimum wall thickness is given by the following equivalence formula:

$$e_1 = \frac{21.4 \times e_0}{\sqrt[3]{R_{m1} \times A_1}}$$

where:

$e_1$  = required equivalent wall thickness of the metal to be used (in mm);

$e_0$  = required minimum wall thickness for the reference steel (in mm);

$R_{m1}$  = guaranteed minimum tensile strength of the metal to be used (in N/mm<sup>2</sup>) (see .3); and

$A_1$  = minimum elongation (as a percentage) of the metal to be used on fracture under tensile stress (see 6.5.5.1.5).

However, in no case shall the wall thickness be less than 1.5 mm.

(ed) For purposes of the calculation described in (b), the guaranteed minimum tensile strength of the metal to be used ( $R_{m1}$ ) shall be the minimum value according to national or international material standards. However, for austenitic steels, the specified minimum value for  $R_m$  according to the material standards may be increased by up to 15% when a greater value is attested in the material inspection certificate. When no material standard exists for the material in question, the value of  $R_m$  shall be the minimum value attested in the material inspection certificate.”.]

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