



**Annex 1 - T&CPI Minimum requirements set for the quality plans of the quality assurance system for the production of packagings (including IBC's and Large Packagings). Publication date August 16th, 2016**

Introduction

The production quality of each construction type of packaging used in the transport of dangerous goods should correspond to the quality of the construction type as approved for the relevant UN-mark.

The production includes the process of the manufacturing of a packaging starting from raw materials, semi-manufactures and auxiliary materials.

The minimum required controls are subdivided in control of incoming goods, production control and final control and are specified for each construction type in the applicable following table.

Reference to an undated standard in the table means that the current version of the standard concerned is applicable. It is acceptable to use another standard when it has been demonstrated that this standard is equivalent to the standard as referenced.

Controls

The controls are performed by comparing the object to be controlled with the reference data connected with the approved construction type. These data can be traced back in the approval report, the test reports, the regulations for the transport of dangerous goods (specifically the test program) and internal company information (for example purchase of materials).

When measurements are performed during the controls then the measured values (average) are compared with the nominal values. In this case the nominal values must be provided with tolerances and the measured values must be within these tolerances. The tolerances are given in the concerned tables. If not the following tolerances are applicable:

±1% for the main dimensions of the packaging;

±3% for the other properties.

The necessary written instructions must be drawn up to ensure proper performance of the controls.

In case of different production lines and/or cavities a representative mix of the produced items must be submitted to the controls as mentioned in the concerned table(s) below.

Incoming control

The table specifies which controls have to be performed. In many cases certificates or other information which is supplied with the delivery of the raw materials, semi-manufactures or auxiliary materials, can be used.

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Production control

Prior to starting up and during the production, the production process, all production machinery and accessory equipment must be inspected to ensure that they are set correctly.

To this end, staff involved in the production process and control work must have adequate and appropriate working and control instructions on the UN-approved construction type at their disposal, as well as the correct documentation.

The production control includes the control of the first produced packaging and further the performance of these controls on the produced packagings within a frequency as stipulated in the annexed tables.

An element of the production control is that every packaging for liquids (and for IBCs also for solids which are filled or discharged under pressure) must be subject to a leakproofness test. The regulations require that every packaging must be capable to reach the level of leakproofness as given for the type test. This requirement must be fulfilled by a combination of a suitable leakproofness test and relevant controls of incoming goods, production and final control.

Final control

The indicated tests must be prepared, performed and evaluated in accordance with the regulations for the transport of dangerous goods and the test programme of the applicable UN-type test. The minimum number of samples to be tested is 1 for every test.

In accordance with 6.1.5.1.10 of the different regulations, provided the validity of the test results is not affected several tests may be made on one sample.

At the final control distinction is made between single and composite packagings on one hand and combination packagings on the other. This is particularly so for the drop test for combination packaging's (the stacking test or as replacement the compression test can be performed on packaging's without inner packaging's). The certificate holder is responsible for the inner packagings, its arrangement and the filling material. The drop test must be performed on the complete combination packaging. This is also applicable for LPs.

For all drop tests, the most vulnerable place has to be chosen for the evaluation.

Reassessment when failure occurs

Where only one packaging fails in only one of the tests (as mentioned in the tables), that test shall be repeated on twice the normal number of identical packaging's for that test. If they all pass, the verification test shall be regarded as meeting the test requirements.

The drop test for bags must be performed by the holder of the certificate in order to guarantee the way of closing in accordance with the design type.

Traceability

A traceability system must be provided, able to trace which raw materials, semi-manufactures and relevant auxiliary materials have been used and which controls have been performed for each produced packaging.

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<b>Table metal drum – jerrican and light gauge metal packaging</b>				
<b>Code</b>	<b>Incoming control</b>	<b>Production control</b>		<b>Final control</b>
1A1 - 1A2 - 3A1 - 3A2 - 0A1 – 0A2	Control metal sheets at each delivery: <ul style="list-style-type: none"> <li>• Compare with type and verify certificate (EN standard for steel or equivalent).</li> <li>• Measurement of the thickness for each delivery (tolerances for steel ISO 16162). (tolerances for tinplate EN 10202)</li> </ul> Semi-manufactures and auxiliary materials: <ul style="list-style-type: none"> <li>• Control at each delivery the specifications and type.</li> </ul>	First sample control and control during production (minimum per UN-mark and with frequency as indicated) :		Inspections to be performed in case of production (1 x per month per UN-mark and minimum 1 sample for each test) : <ul style="list-style-type: none"> <li>- Drop test</li> <li>- Hydraulic pressure test<sup>2</sup> (liquids)</li> <li>- Leakproofness test<sup>1,2</sup> (liquids)</li> </ul>
		<ul style="list-style-type: none"> <li>• Visual control construction type /closures and external condition</li> <li>• Dimensions</li> <li>• Folded seams inspection ( a sawn cross-section)</li> <li>• Welding seam test</li> <li>• Correctness and legibility of markings</li> <li>• Control leakproofness testequipment.</li> <li>• Leak tightness of each packaging for liquids (where required in combination with other controls)</li> </ul>	1x per 4 hour  1x per 4 hour 1x per 4 hour  1x per 4 hour 1x per 4 hour 1x per 8 hour  1x per 4 hour	
				<sup>1</sup> If in the production control a leakproofness test is applied in a manner that can demonstrate a detection level at least corresponding the level for prototype testing, then the leakproofness test can be cancelled at the final control <sup>2</sup> Not required for 0A1 and 0A2 (ADR 6.1.1.3)



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<b>Table fiber drum</b>				
<b>Code</b>	<b>Incoming control</b>	<b>Production control</b>		<b>Final control</b>
1G	Control raw material at each delivery: Based on supplier's factory test report or own analyses including at least the following data: <ul style="list-style-type: none"> <li>• Paper type</li> <li>• Basic mass (ISO 536); tolerance <math>\pm 5\%</math></li> <li>• Bursting strength (ISO 2758); tolerance <math>\pm 7,5\%</math></li> </ul> Semi-manufactures and auxiliary materials: <ul style="list-style-type: none"> <li>• Control at each delivery the specifications and type.</li> </ul>	<ul style="list-style-type: none"> <li>• First sample control and control during production (minimum per UN-mark and with frequency as indicated):</li> </ul>		Inspections to be performed in case of production (1 x per month per UN-mark and minimum 1 sample for each test) : <ul style="list-style-type: none"> <li>• Drop test</li> <li>• Stacking test<sup>1</sup> (conditioning not required)</li> </ul>
		<ul style="list-style-type: none"> <li>• Visual control construction type, manufacturing joints and external condition</li> <li>• Dimensions</li> <li>• Mass</li> <li>• Correctness and legibility of markings</li> </ul>	1x per 4 hour  1x per 4 hour 1x per 4 hour 1x per 4 hour	
				<sup>1</sup> The stacking test need not be performed if tests for the construction type have demonstrated once that the compression strength is $\geq 2.5$ times the force exerted during the stacking test



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<b>Table plastic drum - jerrican</b>				
<b>Code</b>	<b>Incoming control</b>	<b>Production control</b>		<b>Final control</b>
1H1 - 1H2 - 3H1 - 3H2	Control raw material at each delivery: Based on supplier's factory test report or own analyses including at least the following data: <ul style="list-style-type: none"> <li>• Trade name and type/code of the base material;</li> <li>• Melt mass-flow rate (ISO 1133);</li> <li>• Density (ISO 1183).</li> </ul> Semi-manufactures and auxiliary materials: <ul style="list-style-type: none"> <li>• Control at each delivery the specifications and type.</li> </ul>	First sample control and control during production (minimum per UN-mark and with a frequency as indicated):		Inspections to be performed in case of production (1 x per month per UN-mark and minimum 1 sample for each test) : <ul style="list-style-type: none"> <li>• Drop test ( - 18 °C)</li> <li>• Hydraulic pressure test (liquids)</li> <li>• Leakproofness test (liquids)</li> </ul>
		<ul style="list-style-type: none"> <li>• Visual control construction type, welds , closures and external condition</li> <li>• Dimensions : neck (tolerance +/- 3%) body (tolerance +/- 3%)</li> <li>• Mass : tolerance +/- 5 % for ≤ 30L tolerance +/- 4 % for 30L &gt; ≤ 120L tolerance +/- 3 % for ≥ 120L</li> <li>• Minimum wall thickness and distribution of wall thickness or compression test</li> <li>• Inspection of welds by means of drop test (at ambient temperature)</li> <li>• Correctness and legibility of markings</li> <li>• Control leakproofness test equipment.</li> <li>• Leak tightness for liquids (where required in combination with other controls).</li> </ul>	1 x per 8 hours  1 x per 24 hours at start 1 x per 8 hours  1 x per 8 hour  1 x per 8 hours  1 x per 8 hours  every packaging	

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Table metal box					
Code	Incoming control	Production control		Final control	
4A - 4B	Control raw material at each delivery: Based on supplier's factory test report or own analyses including at least the following data: <ul style="list-style-type: none"> <li>Code and/or trade name, as an indication of the quality of the steel or aluminium;</li> <li>A requirement for one or more quality characteristics (e.g. the yield point and carbon content of steel)</li> </ul> Semi-manufactures and auxiliary materials: <ul style="list-style-type: none"> <li>Control at each delivery the specifications and type.</li> </ul>	<ul style="list-style-type: none"> <li>First sample control and control during production (minimum per UN-mark and with frequency as indicated):</li> </ul>		<b>At manufacturer site:</b> Inspections to be performed in case of production (1 x per month per UN-mark and minimum 1 sample for each test) : <ul style="list-style-type: none"> <li>Stacking test <sup>1</sup></li> <li>Drop test <sup>2</sup> (conditioning not required)</li> </ul> <b>At the holder of the certificate of combination packaging:</b> In comparison with the prototype, control conformity of the packaging at use: <ul style="list-style-type: none"> <li>Way of closing</li> <li>Internal arrangements and quality of inner packagings</li> <li>Filling material Droptest <sup>3</sup> (conditioning not required)</li> </ul> <sup>1</sup> The stacking test need not be performed if tests of the construction type have demonstrated once that the compression strength is $\geq 3$ times the force exerted during the stacking test <sup>2</sup> Drop test (1 x per month per UN-mark and minimum 1 sample for each test) for single packaging. The drop test can also be performed as alternative by the holder of the UN-mark on the condition that this agreement between manufacturer and holder has been recorded in writing <sup>3</sup> Drop test at holder of certificate (combination packaging) (to be effectuated at random during third party inspection by the authorised organisation)	
		<ul style="list-style-type: none"> <li>Visual control construction type, manufacturing joints and external condition</li> </ul>	1x 4 per hour		
		<ul style="list-style-type: none"> <li>Dimensions</li> <li>Mass</li> <li>Correctness and legibility of markings</li> </ul>	1x 4 per hour 1x 4 per hour 1x 4 per hour		

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<b>Table wooden box</b>				
<b>Code</b>	<b>Incoming control</b>	<b>Production control</b>		<b>Final control</b>
4C1 - 4C2 - 4D	<p>Control raw material natural wood – plywood at each delivery: Based on supplier's factory test report or own analyses including at least the following data:</p> <ul style="list-style-type: none"> <li>Type of wood and trade name;</li> <li>Nominal dimensions;</li> <li>Number of layers in the plywood;</li> <li>Indication (or spread) of the moisture content on delivery (not for plywood).</li> </ul> <p>Semi-manufactures and auxiliary materials:</p> <ul style="list-style-type: none"> <li>Control at each delivery the specifications and type.</li> </ul>	<ul style="list-style-type: none"> <li>First sample control and control during production (minimum per UN-mark and with frequency as indicated):</li> </ul>	<ul style="list-style-type: none"> <li>Visual control construction type, manufacturing joints and external condition 1x 4 per hour</li> <li>Dimensions 1x 4 per hour</li> <li>Mass 1x 4 per hour</li> <li>Correctness and legibility of markings 1x 4 per hour</li> </ul>	<p><b>At manufacturer site:</b> Inspections to be performed in case of production (1 x per month per UN-mark and minimum 1 sample for each test) :</p> <ul style="list-style-type: none"> <li>Stacking test <sup>1</sup></li> <li>Drop test <sup>2</sup> (conditioning not required)</li> </ul> <p><b>At the holder of the certificate of combination packaging:</b> In comparison with the prototype, control conformity of the packaging at use:</p> <ul style="list-style-type: none"> <li>Way of closing</li> <li>Internal arrangements and quality of inner packagings</li> <li>Filling material Droptest <sup>3</sup> (conditioning not required)</li> </ul> <p><sup>1</sup>The stacking test need not be performed if tests of the construction type have demonstrated once that the compression strength is <math>\geq 3</math> times the force exerted during the stacking test <sup>2</sup>Drop test (1 x per month per UN-mark and minimum 1 sample for each test) for single packaging. The drop test can also be performed as alternative by the holder of the UN-mark on the condition that this agreement between manufacturer and holder has been recorded in writing <sup>3</sup>Drop test at holder of certificate (combination packaging) (to be effectuated at random during third party inspection by the authorised organisation)</p>

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Table fiberboard box				
Code	Incoming control	Production control		Final control
4G	<p>Control raw material at each delivery: Based on supplier's factory test report or own analyses including at least the following data:</p> <p><b>Paper</b></p> <ul style="list-style-type: none"> <li>Paper type;</li> <li>Basic mass (ISO 536);</li> </ul> <p><b>Corrugated board</b></p> <ul style="list-style-type: none"> <li>Maintain corrugation types, number and order</li> <li>Water absorption Cobb test 1800 (ISO 535) <math>\leq 155\text{g/m}^2</math></li> <li>Thickness of corrugated board, measured with a precision of 0.1 mm (ISO 3034)</li> <li>Edge crush test (ISO 3037) Average value of 10 measurements may deviate max. 10 % of the average value measured on the prototype. Variation coefficient &lt; 10%</li> <li>Bursting strength (ISO 2759) for qualities with a bursting strength of 350 kPa up to 4000kPa Average value of 20 measurements may deviate max. 7,5 % of the average value measured on the prototype. Variation coefficient &lt; 10%</li> <li>Puncture resistance (ISO 3036) for qualities with a bursting strength of &gt; 4000kPa Average value of 20 measurements may deviate max. 15 % of the average value measured on the prototype. Variation coefficient &lt; 10%</li> </ul> <p>Semi-manufactures and auxiliary materials:</p> <ul style="list-style-type: none"> <li>Control at each delivery the specifications and type.</li> </ul>	<ul style="list-style-type: none"> <li>First sample control and control during production (minimum per UN-mark and with frequency as indicated):</li> </ul>	<p>1x per hour</p>	<p><b>At manufacturer site:</b> Inspections to be performed in case of production (1 x per month per UN-mark and minimum 1 sample for each test) :</p> <ul style="list-style-type: none"> <li>Stacking test <sup>1</sup></li> <li>Drop test <sup>2</sup> (conditioning not required)</li> </ul> <p><b>At the holder of the certificate of combination packaging:</b> In comparison with the prototype, control conformity of the packaging at use:</p> <ul style="list-style-type: none"> <li>Way of closing</li> <li>Internal arrangements and quality of inner packagings</li> <li>Filling material Droptest <sup>3</sup> (conditioning not required)</li> </ul> <p><sup>1</sup>The stacking test need not be performed if tests of the construction type have demonstrated once that the compression strength is <math>\geq 3</math> times the force exerted during the stacking test <sup>2</sup>Drop test (1 x per month per UN-mark and minimum 1 sample for each test) for single packaging. The drop test can also be performed as alternative by the holder of the UN-mark on the condition that this agreement between manufacturer and holder has been recorded in writing <sup>3</sup>Drop test at holder of certificate (combination packaging) (to be effectuated at random during third party inspection by the authorised organisation)</p>
		<ul style="list-style-type: none"> <li>Visual control construction type, parts, external condition and manufacturing joints (in function of the application: control of the used gluing/tape; place/type/number of stitches)</li> <li>Dimension and width of closing flap Authorised deviation Double faced single board +3mm Double faced double corrugated board +5mm Triple board +10mm</li> <li>Correctness and legibility of markings</li> </ul>	<p>1x per hour</p>	
			<p>1x per hour</p>	





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Table plastic box				
Code	Incoming control	Production control		Final control
4H1 - 4H2	<p>Control raw material at each delivery: Based on supplier's factory test report or own analyses including at least the following data:</p> <ul style="list-style-type: none"> <li>Type of material, trade name and manufacturer;</li> <li>Density (ISO 1183);</li> <li>Melt mass-flow rate (ISO 1133).</li> </ul> <p>Semi-manufactures and auxiliary materials:</p> <ul style="list-style-type: none"> <li>Control at each delivery the specifications and type.</li> </ul>	<ul style="list-style-type: none"> <li>First sample control and control during production (minimum per UN-mark and with frequency as indicated):</li> </ul>	<ul style="list-style-type: none"> <li>Visual control construction type, manufacturing joints and external condition 1x 4 per hour</li> <li>Dimensions 1x 4 per hour</li> <li>Mass 1x 4 per hour</li> <li>Correctness and legibility of markings 1x 4 per hour</li> </ul>	<p><b>At manufacturer site:</b> Inspections to be performed in case of production (1 x per month per UN-mark and minimum 1 sample for each test) :</p> <ul style="list-style-type: none"> <li>Stacking test <sup>1</sup></li> <li>Drop test <sup>2</sup> (conditioning not required)</li> </ul> <p><b>At the holder of the certificate of combination packaging:</b> In comparison with the prototype, control conformity of the packaging at use:</p> <ul style="list-style-type: none"> <li>Way of closing</li> <li>Internal arrangements and quality of inner packagings</li> <li>Filling material Droptest <sup>3</sup> (conditioning not required)</li> </ul>
				<p><sup>1</sup>The stacking test need not be performed if tests of the construction type have demonstrated once that the compression strength is <math>\geq 3</math> times the force exerted during the stacking test</p> <p><sup>2</sup>Drop test (1 x per month per UN-mark and minimum 1 sample for each test) for single packaging. The drop test can also be performed as alternative by the holder of the UN-mark on the condition that this agreement between manufacturer and holder has been recorded in writing</p> <p><sup>3</sup>Drop test at holder of certificate (combination packaging) (to be effectuated at random during third party inspection by the authorised organisation)</p>

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<b>Table paper bag</b>				
<b>Code</b>	<b>Incoming control</b>	<b>Production control</b>		<b>Final control</b>
5M1 - 5M2	Control raw material at each delivery: Based on supplier's factory test report or own analyses including at least the following data:  <b>Paper</b> <ul style="list-style-type: none"> <li>Paper type;</li> <li>Basic mass (ISO 536) : tolerance <math>\pm 5\%</math></li> <li>TEA-value (=TEA<sub>AV</sub>) (ISO 1924/2 or ISO 1924-3); must not be underrun</li> <li>Elongation at break in longitudinal and transversal direction (ISO 1924/2 or ISO 1924-3).</li> </ul> <b>Film</b> <ul style="list-style-type: none"> <li>Material thickness (ISO 4593); Tolerance : <math>\geq 60 \mu\text{m} \pm 10\%</math> Tolerance : <math>&lt; 60 \mu\text{m} \pm 25\%</math></li> <li>Mechanical test :               <ul style="list-style-type: none"> <li>Tensile strength and elongation at break, both parallel and perpendicular to the extrusion direction (ISO 527);<u>or</u></li> <li>Dart test (ISO 7765)</li> </ul> </li> </ul> Semi-manufactures and auxiliary materials: <ul style="list-style-type: none"> <li>Control at each delivery the specifications and type.</li> </ul>	<ul style="list-style-type: none"> <li>First sample control and control during production (minimum per UN-mark and with frequency as indicated):</li> </ul>		Inspections to be performed in case of production (1 x per month per UN-mark and minimum 1 sample for each test) : <ul style="list-style-type: none"> <li>Droptest<sup>1</sup> (conditioning not required)</li> </ul>
		<ul style="list-style-type: none"> <li>Visual control construction type, manufacturing joints and external condition</li> <li>Order of the layers</li> <li>Dimensions conform construction drawing (ISO 6591) ( tolerance <math>\pm 15\text{mm}</math>)</li> <li>Condition of the seams</li> <li>Closing, valve , bottom construction</li> <li>Correctness and legibility of markings</li> </ul>	1x per 2 hour  1x per 2 hour 1x per 2 hour  1x per 2 hour  1x per 2 hour  1x per 2 hour	
				<sup>1</sup> Droptest to be effectuated by the holder of certificate

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<b>Table plastic bag (part 1 From raw material to bag)</b>				
<b>Code Part 1</b>	<b>Incoming control</b>	<b>Production control</b>		<b>Final control</b>
5H1 - 5H2 - 5H3 - 5H4	<p><b>From raw material to bag</b></p> <p>Control raw material at each delivery: Based on supplier's factory test report or own analyses including at least the following data:</p> <ul style="list-style-type: none"> <li>• Trade name and type/code of the base material;</li> <li>• Melt mass-flow rate (ISO 1133);</li> <li>• Density (ISO 1183).</li> </ul>	<ul style="list-style-type: none"> <li>• First sample control and control during production (minimum per UN-mark and with frequency as indicated):</li> </ul>		<p>Inspections to be performed in case of production (1 x per month per UN-mark and minimum 1 sample for each test) :</p> <ul style="list-style-type: none"> <li>• Droptest<sup>1</sup> (conditioning not required)</li> </ul>
		<p><b>Plastics film</b></p> <ul style="list-style-type: none"> <li>• Thickness of the material (ISO 4593);</li> <li>• Mechanical test : <ul style="list-style-type: none"> <li>○ Tensile strength and elongation at break, both parallel and perpendicular to the extrusion direction (ISO 527);<u>or</u></li> <li>○ Dart test (ISO 7765)</li> </ul> </li> </ul> <p><b>Plastics fabric</b></p> <ul style="list-style-type: none"> <li>• Mass per unit area (ISO 3801);</li> <li>• number of threads per 10 cm warp and weft direction;</li> <li>• Number of deniers in warp and weft direction</li> <li>• Tensile strength and elongation at maximum tensile force in warp and weft direction (ISO 1421);</li> </ul> <p><b>Bag production</b></p> <ul style="list-style-type: none"> <li>• Visual control construction type manufacturing joints , external condition and order of layers</li> <li>• Dimensions</li> <li>• Condition of the seams</li> <li>• Filling/closing devices and bottom construction</li> <li>• Correctness and legibility of markings</li> </ul>	<p>1x per 2 hour 1x per 2 hour</p> <p>1x per 2 hour 1x per 2 hour</p> <p>1x per 2 hour 1x per 2 hour</p> <p>1x per 2 hour</p> <p>1x per 2 hour 1x per 2 hour 1x per 2 hour 1x per 2 hour</p>	

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<b>Table plastic bag (part 2 From film/woven material to bag)</b>				
<b>Code Part 2</b>	<b>Incoming control</b>	<b>Production control</b>		<b>Final control</b>
5H1 - 5H2 - 5H3 - 5H4	<p><b><u>From film/woven material to bag</u></b></p> <p><b><u>Plastics film</u></b></p> <ul style="list-style-type: none"> <li>• Thickness of the material (ISO 4593);</li> <li>• Mechanical value :</li> <li>• Tensile strength and elongation at break, both parallel and perpendicular to the extrusion direction (ISO 527);or</li> <li>• Dart test (ISO 7765)</li> </ul> <p><b><u>Plastics fabric</u></b></p> <ul style="list-style-type: none"> <li>• Mass per unit area (ISO 3801);</li> <li>• number of threads per 10 cm warp and weft direction;</li> <li>• Number of deniers in warp and weft direction</li> <li>• Tensile strength and elongation at maximum tensile force in warp and weft direction (ISO 1421);</li> </ul> <p><b><u>Semi-manufactures and auxiliary materials:</u></b> Control at each delivery the specifications and type.</p>	<ul style="list-style-type: none"> <li>• First sample control and control during production (minimum per UN-mark and with frequency as indicated):</li> </ul>		<p>Inspections to be performed in case of production (1 x per month per UN-mark and minimum 1 sample for each test) :</p> <ul style="list-style-type: none"> <li>• Droptest<sup>1</sup>(conditioning not required)</li> </ul> <p><sup>1</sup>Droptest to be effectuated by the holder of certificate</p>
		<p><b><u>Bag production</u></b></p> <ul style="list-style-type: none"> <li>• Visual control construction type manufacturing joints , external condition and order of layers</li> <li>• Dimensions</li> <li>• Condition of the seams</li> <li>• Filling/closing devices and bottom construction</li> <li>• Correctness and legibility of markings</li> </ul>		



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<b>Table composite packaging</b>				
<b>Code</b>	<b>Incoming control</b>	<b>Production control</b>		<b>Final control</b>
6HA1- 6HA2- 6HC - 6HD1 - 6HD2 - 6HG1 - 6HG2 - 6HH1 - 6HH2	Control plastic inner receptacle, in accordance with procedure as described in the table for plastic drums (without final control)	First sample control and control during production (minimum per UN-mark and with frequency as indicated):		Inspections to be performed in case of production (1 x per month per UN-mark and minimum 1 sample for each test) : <ul style="list-style-type: none"> <li>• Droptest (-18°C)</li> <li>• Hydraulic pressure test (liquids)</li> <li>• Leakproofness test (liquids)</li> <li>• Stacking test in accordance with the requirements of the procedures as described for the used outer packaging (for solid products)</li> </ul>
		<ul style="list-style-type: none"> <li>• Visual control construction type/closures and external condition</li> <li>• Closing outer packaging, e.g. folded seams inspection</li> <li>• Correctness and legibility of markings</li> <li>• Exact fitting inner receptacle in outer packaging</li> </ul>	1 x per 4 hours  1 x per 4 hours  1 x per 4 hours  1 x per 4 hours	
	Control outer packaging in accordance with the procedure as described in the applicable table for the used outer packaging (without final control)			
	Control type.			
	Semi-manufactures and auxiliary materials: <ul style="list-style-type: none"> <li>• Control at each delivery the specifications and type.</li> </ul>			



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<b>Table Metal IBC - LP</b>				
<b>Code</b>	<b>Incoming control</b>	<b>Production control</b>		<b>Final control</b>
11A - 21A - 31A-50A	Control raw material at each delivery: Based on supplier's factory test report or own analyses including at least the following data: <ul style="list-style-type: none"> <li>• Chemical composition;</li> <li>• Mechanical properties (tensile strength, yield point, elongation at break);</li> <li>• Dimensions;</li> <li>• Mass;</li> <li>• Thickness</li> </ul> Semi-manufactures and auxiliary materials: Control at each delivery the specifications and type.	First sample control and control during production (minimum per UN-mark and with frequency as indicated) :		Inspections to be performed in case of production (1 x per 500 IBCs/LPs per UN-mark with a minimum of 1x per year):  - Hydraulic pressure test (21A and 31A) - X-ray, magnetic or an equal alternative examination of all intersections and root fusion's
		<ul style="list-style-type: none"> <li>• Visual control construction type/closures, seams and external condition</li> <li>• Dimensions</li> <li>• Volume</li> <li>• Welding seams (for example according to EN-ISO 15614 and non-destructive inspection on hair cracks for example with Die-Check)</li> <li>• Correctness and legibility of markings</li> <li>• IBC of the types 21A and 31A: leak tightness according to test program of type testing</li> </ul>	every IBC/LP  every IBC/LP every IBC/LP every IBC/LP  every IBC/LP every IBC/LP	



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<b>Table Plastic rigid IBC - LP</b>				
<b>Code</b>	<b>Incoming control</b>	<b>Production control</b>		<b>Final control</b>
11H1 - 11H2 – 21H1- 21H2- 31H1 - 31H2- 50H	Control raw material at each delivery: Based on supplier's factory test report or own analyses including at least the following data: <ul style="list-style-type: none"> <li>• Trade name and type/code of the base material;</li> <li>• Melt mass-flow rate (ISO 1133);</li> <li>• Density (ISO 1183)</li> </ul> Semi-manufactures and auxiliary materials: Control at each delivery the specifications and type.	First sample control and control during production (minimum per UN-mark and with frequency as indicated) :		Inspections to be performed in case of production (1 x per 7500 IBCs/LPs with a minimum of 1x per year per UN-mark ): <ul style="list-style-type: none"> <li>• Drop test ( - 18 °C)</li> <li>• Hydraulic pressure test (21H and 31H)</li> <li>• Leakproofness test (21H and 31H)</li> </ul>
		<ul style="list-style-type: none"> <li>• Visual control construction type, welds , closures and external condition, damage to the walls</li> <li>• Mass receptacle</li> <li>• Wall thickness and distribution of wall thickness</li> <li>• Correctness and legibility of markings</li> <li>• Control leakproofness test equipment</li> </ul>	1x per 8 hours  1x per 8 hours 1x per 8 hours  1x per 8 hours <i>1x per 8 hours (for blow moulding process)</i> <i>1x per month( for rotomoulding process)</i>	



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<b>Table Fiberboard IBC-LP</b>			
<b>Code</b>	<b>Incoming control</b>	<b>Production control</b>	<b>Final control</b>
11G - 50G	<p>Control raw material at each delivery: Based on supplier's factory test report or own analyses including at least the following data:</p> <p><b><u>Paper</u></b></p> <ul style="list-style-type: none"> <li>• Paper type;</li> <li>• Basic mass (ISO 536); tolerance <math>\pm</math> 5% or minimum grammage per m<sup>2</sup> at modification of quality.</li> </ul> <p><b><u>Corrugated board</u></b></p> <ul style="list-style-type: none"> <li>• Maintain corrugation types, number and order</li> <li>• Water absorption Cobb test(ISO 535)</li> <li>• Thickness of corrugated board, measured with a precision of 0.1 mm (ISO 3034)</li> <li>• Edge crush test (ISO 3037) Average value of 10 measurements may deviate max. 10 % of the average value measured on the prototype. Variation coefficient &lt; 10%</li> </ul>	<p>First sample control and control during production (minimum per UN-mark and with frequency as indicated) :</p>	<p>Inspections to be performed in case of production (1 x per 1500 IBCs/LPs per UN-mark with a minimum of 1x per year):</p> <ul style="list-style-type: none"> <li>• Drop test (conditioning: not required)</li> <li>• Stacking test<sup>1</sup></li> </ul>



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	<ul style="list-style-type: none"> <li>Bursting strength (ISO 2759) for qualities with a bursting strength of 350 kPa up to 4000kPa Average value of 20 measurements may deviate max. 7,5 % of the average value measured on the prototype. Variation coefficient &lt; 10%</li> <li>Puncture resistance (ISO 3036) for qualities with a bursting strength of &gt; 4000kPa Average value of 20 measurements may deviate max. 15 % of the average value measured on the prototype. Variation coefficient &lt; 10%</li> </ul> <p>Semi-manufactures and auxiliary materials: Control at each delivery the specifications and type.</p>	<ul style="list-style-type: none"> <li>Visual control construction type, parts, external condition and manufacturing joints (in function of the application: control of the used gluing/tape; place/ type/number of stitches)</li> <li>Dimension</li> <li>Authorised deviation Double faced single board +3mm Double faced double corrugated board +5mm Triple board +10mm</li> <li>Proper function of closure system</li> <li>Control interior side on the possibility of damaging the liner</li> <li>Correctness and legibility of markings</li> </ul>	<p>1x per 10 IBCs/LPs</p> <p>1x per 10 IBCs/LPs 1x per 10 IBCs/LPs</p> <p>1x per 10 IBCs/LPs</p> <p>1x per 10 IBCs/LPs</p> <p>1x per 10 IBCs/LPs</p>	<p><sup>1</sup> The stacking test need not be performed if tests for the construction type have demonstrated once that the compression strength is &gt; 2.5 times the force exerted during the stacking test</p>
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<b>Table Flexible IBC</b>				
<b>Code</b>	<b>Incoming control</b>	<b>Production control</b>		<b>Final control</b>
13H1- 13H2- 13H3- 13H4- 13H5 – 51H	Control raw material at each delivery: Based on supplier's factory test report or own analyses including at least the following data: <b>Plastics</b> <ul style="list-style-type: none"> <li>Trade name and type/code of the base material;</li> <li>Melt mass-flow rate (ISO 1133);</li> <li>Density (ISO 1183);</li> </ul> <b>Plastics film</b> <ul style="list-style-type: none"> <li>Thickness (ISO 4593);</li> <li>Tensile strength and elongation at break parallel and perpendicular to the extrusion direction (ISO 527).</li> </ul> <b>Plastics fabrics (with or without coating)</b> <ul style="list-style-type: none"> <li>Mass per unit area (ISO 3801);</li> <li>number of threads per 10 cm warp and weft direction;</li> <li>Number of deniers in warp and weft direction</li> <li>Tensile strength and elongation at maximum tensile force in warp and weft direction (ISO 1421);</li> </ul> <b>Thread</b> <ul style="list-style-type: none"> <li>Mass per unit of length (ISO 2060);</li> <li>Tensile strengt hand elongation (ISO 2062).</li> </ul> <b>Lifting loop</b> <ul style="list-style-type: none"> <li>Dimensions (width and thickness);</li> <li>Mass per unit of length;</li> <li>Tensile strength and elongation (ISO 13934-1/2).</li> </ul> Semi-manufactures and auxiliary materials: Control at each delivery the specifications and type.	First sample control and control during production (minimum per UN-mark and with frequency as indicated) :		Inspections to be performed in case of production (1 x per 1000 IBCs/LPs per UN-mark with a minimum of 1x per year ): <ul style="list-style-type: none"> <li>Drop test</li> <li>Top lift test</li> <li>Topple ltest</li> <li>Righting test</li> </ul>
		<ul style="list-style-type: none"> <li>Visual control construction type, seams and external condition</li> <li>Dimensions ( )</li> <li>Filling, closing and hoisting devices</li> <li>Correctness and legibility of markings</li> </ul>	every sample  1x per 250 IBCs/LPs 1x per 250 IBCs/LPs 1x per 250 IBCs/LPs/per lot	

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<b>Table Composite IBC</b>				
<b>Code</b>	<b>Incoming control</b>	<b>Production control</b>		<b>Final control</b>
11HA1-11HA2- 21HA1- 21HA2- 31HA1- 31HA2- 11HG1- 11HG2- 21HG1- 21HG2- 31HG1- 31HG2- 11HH1- 11HH2- 21HH1- 21HH2- 31HH1- 31HH2	Control plastic inner receptacle, in accordance with procedure as described in the table for plastic IBC (without final control)	First sample control and control during production (minimum per UN-mark and with frequency as indicated) :		Inspections to be performed in case of production (1 x per 7500 IBCs per UN-mark with a minimum of 1x per year): <ul style="list-style-type: none"> <li>• Drop test ( - 18 °C)</li> <li>• Hydraulic pressure test (21 and 31)</li> <li>• Leakproofness test (21 and 31)</li> </ul>
	Control outer packaging in accordance with the procedure as described in the applicable IBC table for the used outer packaging (without final control) <sup>1</sup>  Control type.  Semi-manufactures and auxiliary materials: Control at each delivery the specifications and type.	<ul style="list-style-type: none"> <li>• Visual control construction type/closures/connections and external condition</li> <li>• Closing outer packaging</li> <li>• Correctness and legibility of markings</li> <li>• Exact fitting inner receptacle in outer packaging</li> </ul>	1x per 10 IBCs  1x per 10 IBCs 1x per 10 IBCs 1x per 10 IBCs	
<sup>1</sup> For composite IBC with a metal outer cage, the cage is considered as a semi-manufacture				