

Regulation (EU) 2019/1009 of the European Parliament and of the Council of 5 June 2019 laying down rules on the making available on the market of EU fertilising products and amending Regulations (EC) No 1069/2009 and (EC) No 1107/2009 and repealing Regulation (EC) No 2003/2003 (Text with EEA relevance)

ANNEX IV

Conformity assessment procedures

PART II

DESCRIPTION OF CONFORMITY ASSESSMENT PROCEDURES

MODULE A1 – INTERNAL PRODUCTION CONTROL PLUS SUPERVISED PRODUCT TESTING

1. Description of the module

Internal production control plus supervised product testing is the conformity assessment procedure whereby the manufacturer fulfils the obligations laid down under points 2, 3, 4, and 5, and ensures and declares on his or her sole responsibility that the EU fertilising products concerned satisfy the requirements of this Regulation that apply to them.

2. Technical documentation

2.1. The manufacturer shall establish the technical documentation. The documentation shall make it possible to assess the EU fertilising product's conformity with the relevant requirements, and shall include an adequate analysis and assessment of the risk(s).

2.2. The technical documentation shall specify the applicable requirements and cover, as far as relevant for the assessment, the design, manufacture and intended use of the EU fertilising product. The technical documentation shall contain, where applicable, at least the following elements:

- (a) a general description of the EU fertilising product, the PFC corresponding to the claimed function of the EU fertilising product and description of the intended use,
- (b) a list of component materials used, the CMCs as referred to in Annex II to which they belong and information about their origin or manufacturing process,
- (c) the EU declarations of conformity for the component EU fertilising products of the fertilising product blend,
- (d) drawings, schemes, descriptions and explanations necessary for the understanding of the manufacturing process of the EU fertilising product,
- (e) a specimen of the label or the leaflet, or both, referred to in Article 6(7) containing the information required in accordance with Annex III,
- (f) the names and addresses of the sites, and of the operators of the sites, at which the product and its principal components were manufactured,
- (g) a list of the harmonised standards referred to in Article 13, common specifications referred to in Article 14 and/or other relevant technical specifications applied. In the event of partly applied harmonised standards or common specifications, the technical documentation shall specify the parts which have been applied,
- (h) results of calculations made, including the calculations to demonstrate conformity with point 5 of Part II of Annex I, examinations carried out, etc.,

- (i) test reports, including the reports from product checks for oil retention and detonation resistance, referred to in point 4 and
- (j) where the EU fertilising product contains or consists of by-products within the meaning of Directive 2008/98/EC, technical and administrative evidence that the by-products comply with the criteria established by delegated acts referred to in Article 42(7) of this Regulation, and with the national measures transposing Article 5(1) of Directive 2008/98/EC and, where applicable, implementing acts referred to in Article 5(2) or national measures adopted under Article 5(3) of that Directive.

3. Manufacturing

The manufacturer shall take all measures necessary so that the manufacturing process and its monitoring ensure compliance of the manufactured EU fertilising products with the technical documentation referred to in point 2 and with the requirements of this Regulation that apply to them.

4. Product checks for oil retention and detonation resistance

The thermal cycles and tests referred to in points 4.1 to 4.4 shall be carried out on a representative sample of the EU fertilising product every 3 months on behalf of the manufacturer, in order to verify conformity with:

- (a) the oil retention requirement referred to in point 4 under PFC 1(C)(I)(a)(i-ii)(A) in Annex I, and
- (b) the detonation resistance requirement referred to in point 5 under PFC 1(C)(I)(a)(i-ii)(A) in Annex I.

The thermal cycles and tests shall be carried out under the responsibility of a notified body chosen by the manufacturer.

4.1. Thermal cycles prior to a test for compliance with the oil retention requirement referred to in point 4 under PFC 1(C)(I)(a)(i-ii)(A) in Annex I

4.1.1. Principle and definition

In a closed suitable laboratory flask, heat the sample from ambient temperature to 50 °C and maintain at this temperature for a period of two hours (phase at 50 °C). Thereupon cool the sample until a temperature of 25 °C is achieved and maintain at that temperature for two hours (phase at 25 °C). The combination of the successive phases at 50 °C and 25 °C forms one thermal cycle. After being subjected to two thermal cycles, the test sample is held at a temperature of 20 (± 3) °C for the determination of the oil retention value.

4.1.2. Apparatus

Normal laboratory apparatus, in particular:

- (a) water baths or ovens thermostated at 25 ± 1 °C and 50 ± 1 °C respectively,
- (b) suitable laboratory flasks with an individual capacity of 150 ml.

4.1.3. Procedure

- 4.1.3.1. Put each test sample of 70 ± 5 g into a suitable laboratory flask which is then closed.

4.1.3.2. After attaining the temperature of 50 °C and maintain that temperature for two hours, change the temperature of the flask to the 25 °C bath or oven and proceed as described in 4.1.1.

4.1.3.3. If using a water bath maintain the water of each bath at constant temperature and keep in motion by rapid stirring. Ensure the water level comes above the level of the sample. Protect the stopper from condensation by a foam rubber cap.

4.2. Oil retention test referred to in point 4 under PFC 1(C)(I)(a)(i-ii)(A) in Annex I

4.2.1. Description

The oil retention of an EU fertilising product shall be the quantity of oil retained by the EU fertilising product determined under the operating conditions specified and expressed as a % by mass.

The test shall be carried out on a representative sample of the EU fertilising product. Before being tested, the whole mass of the sample shall be thermally cycled two times in accordance with point 4.1.

The method is applicable to both prilled and granular fertilisers which do not contain oil soluble materials.

4.2.2. Principle

Total immersion of the test sample in gas oil for a specified period, followed by the draining away of surplus oil under specified conditions. Measurement of the increase in mass of the test portion.

4.2.3. Reagents

Gas oil with the following characteristics:

- (a) viscosity max.: 5 mPas at 40 °C;
- (b) density: 0,8 g/ml to 0,85 g/ml at 20 °C;
- (c) sulphur content: ≤ 1,0 % (m/m);
- (d) ash: ≤ 0,1 % (m/m).

4.2.4. Apparatus

Ordinary laboratory apparatus, and:

- (a) balance, capable of weighing to the nearest 0,01 g;
- (b) beakers, of capacity 500 ml;
- (c) funnel, of plastic materials, preferably with a cylindrical wall at the upper end, diameter approximately 200 mm;
- (d) test sieve, aperture 0,5 mm, fitting into the funnel;

Note: The size of the funnel and sieve is such as to ensure that only a few granules lie one above another and the oil is able to drain easily.

- (e) filter paper, rapid filtering grade, creped, soft, mass 150 g/m²;
- (f) absorbent tissue (laboratory grade).

4.2.5. Procedure

4.2.5.1. Two individual determinations are carried out in quick succession on separate portions of the same test sample.

4.2.5.2. Remove particles smaller than 0,5 mm using the test sieve. Weigh to the nearest 0,01 g approximately 50 g of the sample into the beaker. Add sufficient gas oil to cover the prills or granules completely and stir carefully to ensure that the surfaces of all the prills or granules are fully wetted. Cover the beaker with a watch glass and leave to stand for one hour at 25 (± 2) °C.

4.2.5.3. Filter the entire contents of the beaker through the funnel containing the test sieve. Allow the portion retained by the sieve to remain there for one hour so that most of the excess oil can drain away.

4.2.5.4. Lay two sheets of filter paper (about 500 mm x 500 mm) on top of each other on a smooth surface; fold the four edges of both filter papers upwards to a width of about 40 mm to prevent the prills or granules from rolling away. Place two layers of absorbent tissue in the centre of the filter papers. Pour the entire contents of the sieve over the absorbent tissues and spread the prills or granules evenly with a soft, flat brush. After two minutes lift one side of the tissues to transfer the prills or granules to the filter papers beneath and spread them evenly over these with the brush. Lay another sheet of filter paper, similarly with its edges turned upward, on the sample and roll the prills or granules between the filter papers with circular movements while exerting a little pressure. Pause after every eight circular movements to lift the opposite corners of the filter papers and return to the centre the prills or granules that have rolled to the periphery. Keep to the following procedure: make four complete circular movements, first clockwise and then anticlockwise. Then roll the prills or granules back to the centre as described above. This procedure is to be carried out three times (24 circular movements, corners lifted twice). Carefully insert a new sheet of filter paper between the bottom sheet and the one above it and allow the prills or granules to roll onto the new sheet by lifting the edges of the upper sheet. Cover the prills or granules with a new sheet of filter paper and repeat the same procedure as described above. Immediately after rolling, pour the prills or granules into a tared dish and reweigh to the nearest 0,01 g to determine the mass of the quantity of gas oil retained.

4.2.5.5. Repeating the rolling procedure and reweighing

If the quantity of gas oil retained in the portion is found to be greater than 2,00 g, place the portion on a fresh set of filter papers and repeat the rolling procedure, lifting the corners in accordance with point 4.2.5.4 (two times eight circular movements, lifting once). Then reweigh the portion.

4.2.5.6. Two oil retention tests per sample are to be carried out.

4.2.6. Test report

4.2.6.1. Expression of the results

4.2.6.1.1. Method of calculation and formula

The oil retention, from each determination (point 4.2.5.1) expressed as a % by mass of the sieved test portion, is given by the equation:

$$\text{Oil retention} = \frac{m_2 - m_1}{m_1} \times 100$$

where:

m_1 is the mass, in grams, of the sieved test portion (point 4.2.5.2),

m_2 is the mass, in grams, of the test portion according to points 4.2.5.4 and 4.2.5.5 respectively as the result of the last weighing.

4.2.6.1.2. Take as the result the arithmetic mean of the two individual determinations.

4.2.6.2. The test report shall form part of the technical documentation.

4.3. Thermal cycles prior to the detonation resistance test referred to in point 5 under PFC 1(C)(I)(a)(i-ii)(A) in Annex I

4.3.1. Principle and definition

In a tight box heat the sample from ambient temperature to 50 °C and maintain at this temperature for a period of one hour (phase at 50 °C). Thereupon cool the sample until a temperature of 25 °C is achieved and maintain at that temperature for one hour (phase at 25 °C). The combination of the successive phases at 50 °C and 25 °C forms one thermal cycle. After being subjected to the required number of thermal cycles, the test sample is held at a temperature of 20 ± 3 °C pending the execution of the detonation resistance test.

4.3.2. Apparatus

Method 1

- (a) A water bath, thermostated in a temperature range of 20 to 51 °C with a minimum heating and cooling rate of 10 °C/h, or two water baths, one thermostated at a temperature of 20 °C, the other at 51 °C. The water in the bath(s) is continuously stirred; the volume of the bath shall be large enough to guarantee ample circulation of the water.
- (b) A stainless steel box, watertight all around and provided with a temperature recording device in the centre. The outside width of the box is 45 ± 2 mm and the wall thickness is 1,5 mm (see Figure 1 as an example). The height and length of the box can be chosen to suit the dimensions of the water bath, e.g. length 600 mm, height 400 mm.

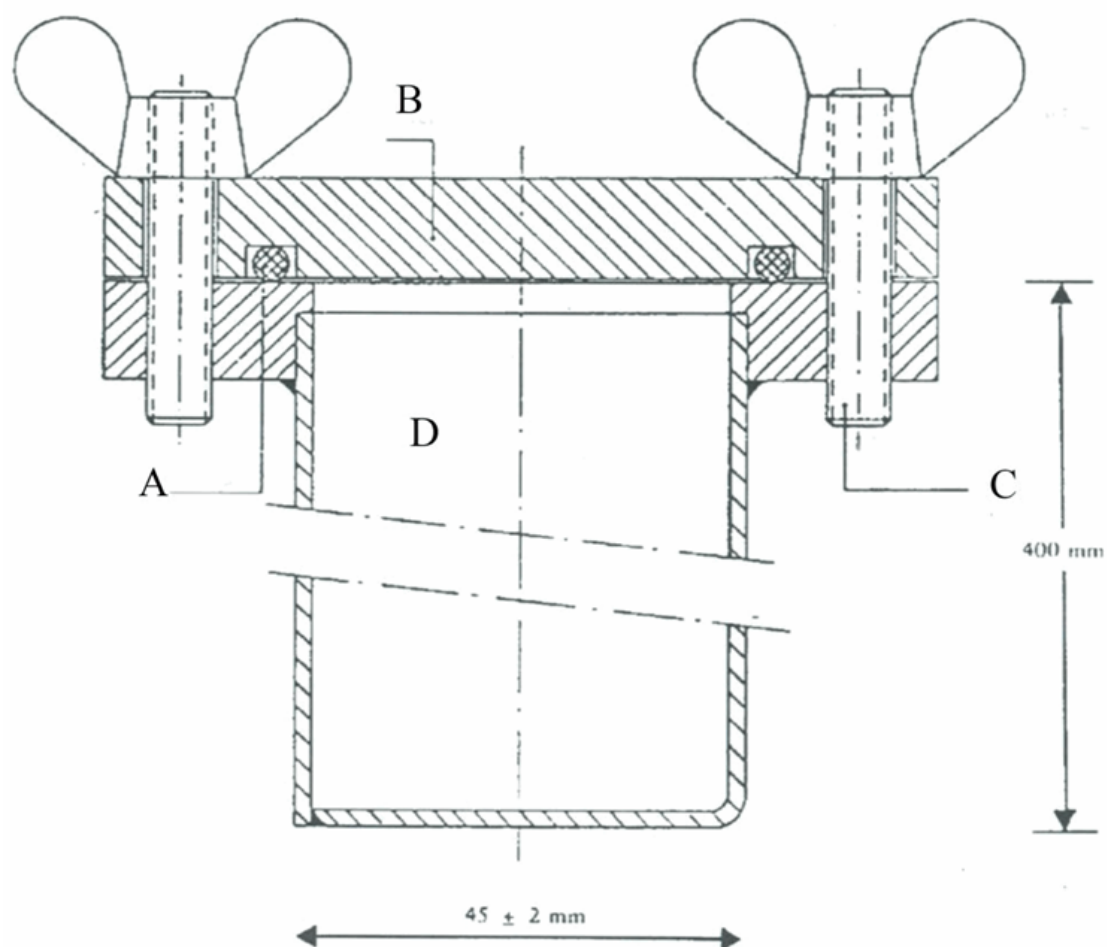
Method 2

- (a) Suitable oven, thermostated in a temperature range of 20 °C to 51 °C with a minimum heating and cooling rate of 10 °C/h.
- (b) Suitable airtight plastics boxes or bags provided with a suitable temperature recording device in the centre of the sample or a stainless steel box as described in point (b) of method 1 of point 4.3.2. Once filled, the outside thickness of the box or bag shall be maximum 45 mm.

4.3.3. Procedure

Place a quantity of fertilisers sufficient for the detonation resistance test into the boxes or bags and close them. Place the stainless steel boxes in the water bath (method 1) or the boxes or bags in the oven (method 2). Heat the water or oven to 51 °C and measure the temperature in the centre of the fertiliser. One hour after the temperature at the centre has reached 50 °C start cooling. One hour after the temperature at the centre has reached 25 °C start heating for the second cycle. In the case of two water baths or ovens, transfer the boxes or bags to the other bath or oven after each heating/cooling period.

Figure 1



- A : O-ring
 B : Cover
 C : Bolt
 D : Box

4.4. Detonation resistance test referred to in point 5 under PFC 1(C)(I)(a)(i-ii)(A) in Annex I

4.4.1. Description

4.4.1.1. The test shall be carried out on a representative sample of the EU fertilising product. Before being tested for resistance to detonation, the whole mass of the sample is to be thermally cycled five times in accordance with point 4.3.

4.4.1.2. The EU fertilising product shall be subjected to the detonation resistance test in a horizontal steel tube under the following conditions (the details of the materials are in point 4.4.3):

(a) seamless steel tube:

- (i) Tube length: 1 000 mm at least,
- (ii) Nominal external diameter: 114 mm at least,
- (iii) Nominal wall thickness: 5 mm at least,

- (b) booster: the type and mass of the booster chosen shall be such as to maximise the detonation pressure applied to the sample in order to determine its susceptibility to the transmission of detonation,
- (c) temperature of the sample: 15 °C to 25 °C,
- (d) witness lead cylinders for detecting detonation: 50 mm diameter and 100 mm height,
- (e) placed at 150 mm intervals and supporting the tube horizontally.

NOTE: The test is to be carried out twice. The test is deemed conclusive if in both tests one or more of the supporting lead cylinders is crushed by less than 5 %.

4.4.2. Principle

The test sample is confined in a steel tube and subjected to detonation shock from an explosive booster charge. Propagation of the detonation is determined from the degree of crushing of lead cylinders on which the tube rests horizontally during the test.

4.4.3. Materials

- (a) Plastic explosive containing 83 % to 86 % penthrite
 - density: 1 500 kg/m³ to 1 600 kg/m³
 - detonation velocity: 7 300 m/s to 7 700 m/s
 - mass: (500 ± 1) g;
 or any other plastic explosive with similar detonation characteristics.
- (b) Seven lengths of flexible detonating cord with non-metallic sleeve
 - filling mass: 11 g/m to 13 g/m
 - length of each cord: (400 ± 2) mm.
- (c) Compressed pellet of secondary explosive, recessed to receive detonator
 - explosive: hexogen/wax 95/5 or similar secondary explosive, with or without added graphite
 - density: 1 500 kg/m³ to 1 600 kg/m³
 - diameter: 19 mm to 21 mm
 - height: 19 mm to 23 mm
 - mass of the compressed pellet: maximum 10 g
 - central recess to receive detonator: maximal diameter 7,0 to 7,3 mm, depth about 12 mm. In case of detonators with large diameters, the diameter of the recess shall be slightly larger (e.g. 0,5 mm) than the diameter of the detonator.
- (d) Seamless steel tube as specified in ISO 65 – 1981 – Heavy Series, with nominal dimensions DN 100 (4")
 - outside diameter: 113,1 mm to 115,0 mm
 - wall thickness: 5,0 mm to 6,5 mm
 - length: 1 005 ± 2 mm.
- (e) Bottom plate
 - material: steel of good weldable quality
 - dimensions: 160 mm × 160 mm
 - thickness: 5 mm to 6 mm.

- (f) Six lead cylinders
 - diameter: 50 ± 1 mm
 - height: 100 mm to 101 mm
 - materials: soft lead, at least 99,5 % purity.
- (g) Steel block
 - length: at least 1 000 mm
 - width: at least 150 mm
 - height: at least 150 mm (alternatively a stack of several beams can be used to achieve this height)
 - Mass: at least 300 kg if there is no firm base for the steel block.
- (h) Plastic or cardboard cylinder for booster charge
 - wall thickness: 1,5 mm to 2,5 mm
 - diameter: 92 mm to 96 mm
 - height: 64 mm to 67 mm.
- (i) Detonator (electric or non-electric) with initiation force 8 to 10
- (j) Wooden or plastic disc
 - diameter: 92 mm to 96 mm. Diameter to be matched to the internal diameter of the plastic or cardboard cylinder (point (h))
 - thickness: 20 mm.
- (k) Wooden or plastic rod of same dimensions as detonator (point (i))
- (l) Small split pins (maximum length 20 mm)
- (m) Split pins (length about 20 mm)

4.4.4. Procedure

4.4.4.1. Preparation of booster charge for insertion into steel tube

Depending on the availability of equipment, the explosive can be initiated in the booster charge either

- by seven-point simultaneous initiation as referred to in point 4.4.4.1.1, or
- by central initiation by a compressed pellet as referred to in point 4.4.4.1.2.

4.4.4.1.1. Seven-point simultaneous initiation

The booster charge prepared for use is shown in Figure 2.

4.4.4.1.1.1. Drill holes in the wooden or plastic disc (point (j) under point 4.4.3) parallel to the axis of the disc through the centre and through six points symmetrically distributed around a concentric circle 55 mm in diameter. The diameter of the holes shall be 6 mm to 7 mm (see Section A-B in Figure 2), depending on the diameter of the detonating cord used (point (b) under point 4.4.3).

4.4.4.1.1.2. Cut seven lengths of flexible detonating cord (point (b) under point 4.4.3) each 400 mm long, avoiding any loss of explosive at each end by making a clean cut and immediately sealing the end with adhesive. Push each of the seven lengths through each of the seven holes in the wooden or plastic disc (point (j) under point 4.4.3) until their ends project a few centimetres on the other side of the disc. Then insert a small split pin (point (l) under point 4.4.3) transversally into the textile sleeve of each length of cord

5 mm to 6 mm from the end and apply adhesive around the outside of the lengths of cord in a band 2 cm wide adjacent to the pin. Finally, pull the long piece of each cord to bring the pin into contact with the wooden or plastic disc.

4.4.4.1.1. Shape the plastic explosive (point (a) under point 4.4.3) to form a cylinder 92 mm to 96 mm in diameter, depending on the diameter of the cylinder (point (h) under point 4.4.3). Stand this cylinder upright on a level surface and insert the shaped explosive. Then insert the wooden or plastic disc⁽¹⁾ carrying the seven lengths of detonating cord into the top of the cylinder and press it down onto the explosive. Adjust the height of the cylinder (64 mm to 67 mm) so that its top edge does not extend beyond the level of the wood or plastic. Finally, fix the cylinder to the wooden or plastic disc for instance with staples or small nails, around its entire circumference.

4.4.4.1.1. Group the free ends of the seven lengths of detonating cord around the circumference of the wooden or plastic rod (point (k) under point 4.4.3) so that their ends are all level in a plane perpendicular to the rod. Secure them in a bundle around the rod by means of adhesive tape⁽²⁾.

4.4.4.1.2. Central initiation by a compressed pellet

The booster charge prepared for use is shown in Figure 3.

4.4.4.1.2. Preparing a compressed pellet

Taking the necessary safety precautions, place maximum 10 g of a secondary explosive (point (c) under point 4.4.3) in a mould with an inside diameter of 19 mm to 21 mm and compress to the correct shape and density (the ratio of diameter: height should be roughly 1:1). In the centre of the bottom of the mould there is a peg, 12 mm in height and 7,0 mm to 7,3 mm in diameter (depending on the diameter of the detonator used), which forms a cylindrical recess in the compressed cartridge for subsequent insertion of the detonator.

4.4.4.1.2. Preparing the booster charge

Place the explosive (point (a) under point 4.4.3) into the cylinder (point (h) under point 4.4.3) standing upright on a level surface, then press it down with a wooden or plastic die to give the explosive a cylindrical shape with a central recess. Insert the compressed pellet into this recess. Cover the cylindrically shaped explosive containing the compressed pellet with a wooden or plastic disc (point (j) under point 4.4.3) having a central hole 7,0 mm to 7,3 mm in diameter for insertion of a detonator. Fix the wooden or plastic disc and the cylinder together with a cross of adhesive tape. Ensure that the hole drilled in the disc and the recess in the compressed pellet are coaxial by inserting the wooden or plastic rod (point (k) under point 4.4.3).

4.4.4.2. Preparing steel tubes for the detonation tests

At one end of the steel tube (point (d) under point 4.4.3), drill two diametrically opposed holes 4 mm in diameter perpendicularly through the side wall at a distance of 4 mm from the edge. Butt weld the bottom plate (point (e) under point 4.4.3) to the opposite end of the tube, completely filling the right angle between the bottom plate and the wall of the tube with weld metal around the entire circumference of the tube.

4.4.4.3. Filling and charging the steel tube

See Figures 2 and 3.

4.4.4.3.1. The test sample, the steel tube and the booster charge shall be conditioned to temperatures of (20 ± 5) °C. About 20 kg of the test sample should be available for two detonation resistance tests.

4.4.4.3.2. Place the tube upright with its square bottom plate resting on a firm, flat surface, preferably concrete. Fill the tube to about one-third of its height with the test sample and drop it 10 cm vertically onto the flat surface five times to compact the prills or granules as densely as possible in the tube. To accelerate compaction, vibrate the tube by striking the side wall with a 750 g to 1 000 g hammer between drops for a total of 10 times.

4.4.4.3.2. Repeat this charging method with another portion of the test sample. Finally, a further addition shall be made such that, after compaction by raising and dropping the tube 10 times and a total of 20 intermittent hammer blows, the charge fills the tube to a distance of 70 mm from its orifice.

4.4.4.3.2. The filling height of the sample shall be adjusted in the steel tube so that the booster charge (referred to in point 4.4.4.1.1 or 4.4.4.1.2) to be inserted later will be in close contact with the sample over its entire surface.

4.4.4.3.3. Insert the booster charge into the tube so that it is in contact with the sample; the top surface of the wooden or plastic disc shall be 6 mm below the end of the tube. Ensure essential close contact between explosive and test sample by taking out the booster charge and adding or removing small quantities of sample. As shown in Figures 2 and 3, split pins should be inserted through the holes near the open end of the tube and their legs opened flat against the tube.

4.4.4.4. Positioning of the steel tube and lead cylinders (see Figure 4)

4.4.4.4.1. Number the bases of the lead cylinders (point (f) under point 4.4.3) 1, 2, 3, 4, 5 and 6. Make six marks 150 mm apart along a line on a steel block (point 4.4.3(g)) lying on a horizontal base, with each mark at least 75 mm from any edge of the block. Place a lead cylinder upright on each of these marks, with the base of each cylinder centred on its mark (see Figure 4).

4.4.4.4.2. Lay the steel tube prepared according to point 4.4.4.3 horizontally on the lead cylinders so that the axis of the tube is parallel to the centre line of the lead cylinders and the welded end of the tube extends 50 mm beyond lead cylinder No 6. To prevent the tube from rolling, insert small wooden or plastic wedges between the tops of the lead cylinders and the tube wall (one on each side) or place a cross of wood between the tube and the steel block or stack of beams. (see Figure 4).

Note: Make sure that the tube is in contact with all six lead cylinders; a slight curvature of the tube surface can be compensated for by rotating the tube about its longitudinal axis; if any of the lead cylinders is too tall, tap the cylinder in question carefully with a hammer until it is the required height.

4.4.4.5. Preparation for detonation

4.4.4.5.1. Set up the apparatus as described in point 4.4.4.4 in a bunker or suitably prepared underground site or suitable location. Ensure that the temperature of the steel tube is kept at (20 ± 5) °C before detonation.

Note: Detonation can cause steel fragments to be projected with high kinetic energy, therefore, firing shall be carried out at a suitable distance from dwellings or thoroughfares.

4.4.4.5.2. If the booster charge with seven-point initiation is used, ensure that the detonation cords are stretched out as described in the footnote to point 4.4.4.1.1.4 and arranged as horizontally as possible.

4.4.4.5.3. Finally, remove the wooden or plastic rod and replace with the detonator. Do not carry out firing until the danger zone has been evacuated and the test personnel have taken cover.

4.4.4.5.4. Detonate the explosive.

4.4.4.6.1. Allow sufficient time for the fumes (gaseous and sometimes toxic decomposition products such as nitrous gases) to disperse, then collect the lead cylinders and measure their heights with a Vernier caliper.

4.4.4.6.2. Record for each of the marked lead cylinders, the degree of crushing expressed as a percentage of the original height of 100 mm. If the cylinders are crushed obliquely, record the highest and the lowest values and calculate the average.

4.4.4.7. Detonation velocity measurement can also be performed.

4.4.4.8. Two detonation tests per sample are to be carried out.

4.4.5. Test report

Values for the following parameters are to be given in the test report for each of the detonation resistance tests:

- the values actually measured for the outside diameter of the steel tube and for the wall thickness,
- the Brinell hardness of the steel tube,
- the temperature of the tube and the sample shortly before firing,
- the packing density (kg/m^3) of the sample in the steel tube,
- the height of each lead cylinder after firing, specifying the corresponding cylinder number,
- method of initiation employed for the booster charge.

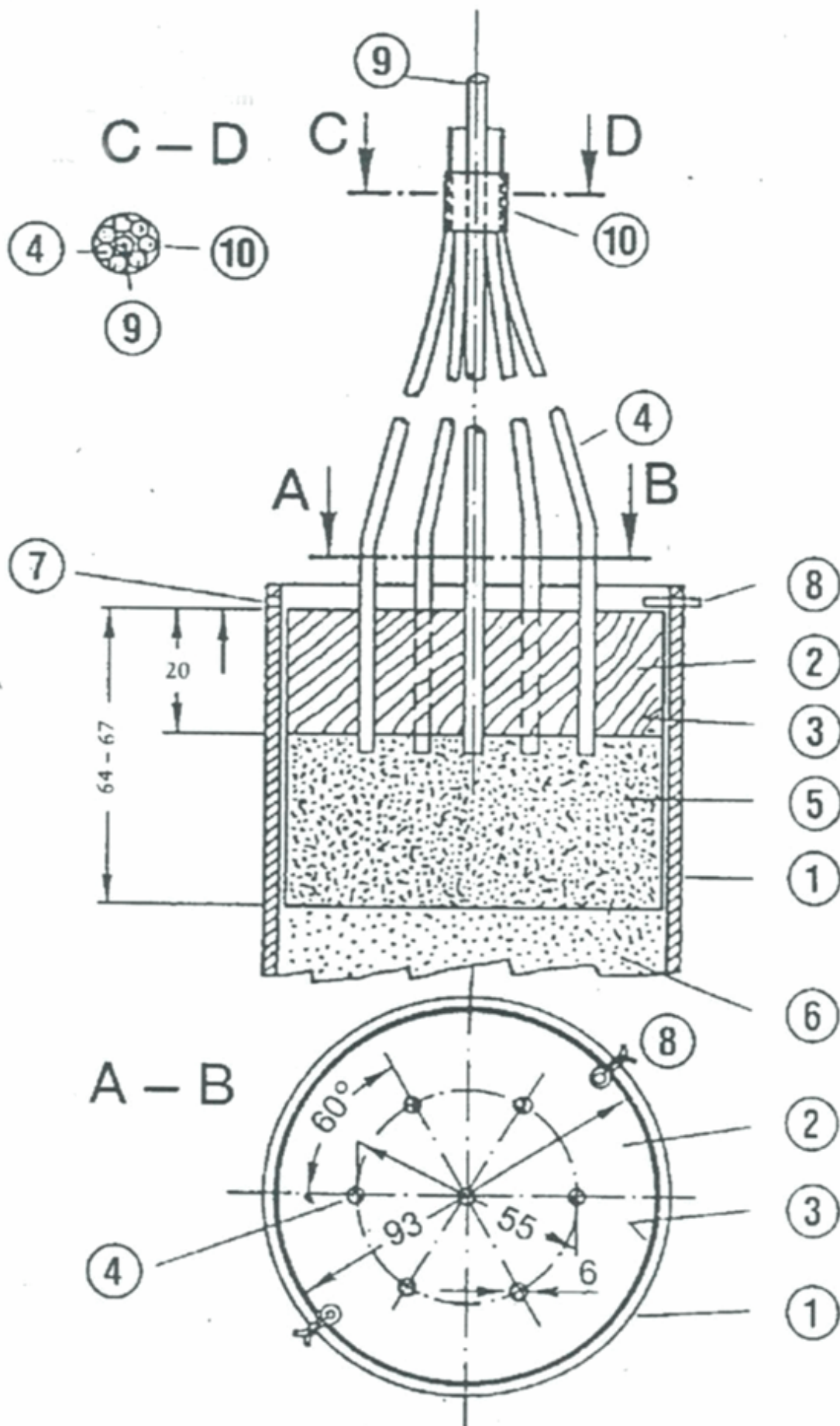
4.4.6. Evaluation of test results

If, in each firing, the crushing of at least one lead cylinder is less than 5 %, the test shall be considered conclusive and it shall be considered that the sample presented is resistant to detonation.

4.4.7. The test report shall form part of the technical documentation.

Figure 2

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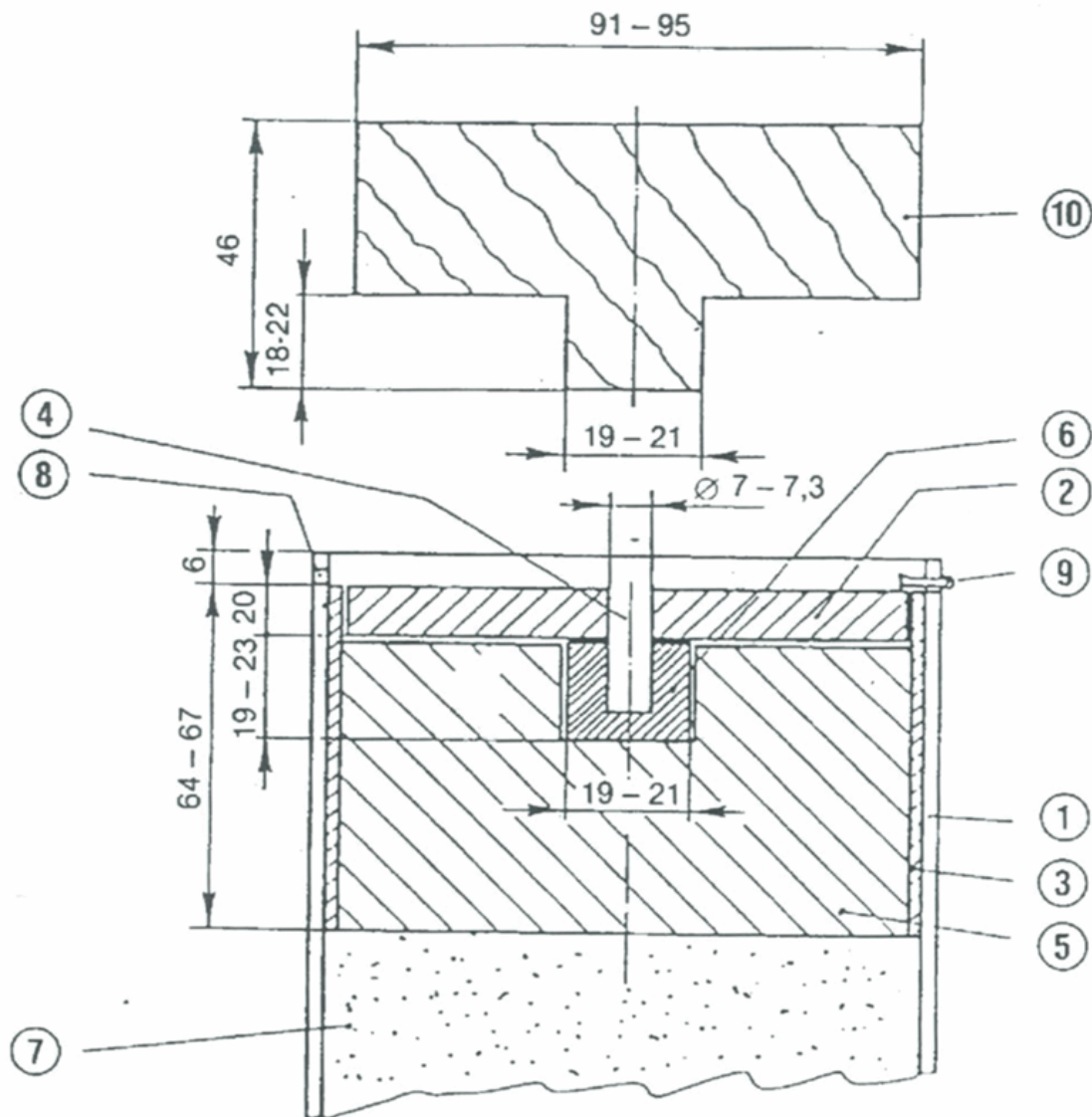


Status: This is the original version (as it was originally adopted).

Booster charge with seven-point initiation

- 1 : Steel tube
- 2 : Wooden or plastic disc with seven holes
- 3 : Plastic or cardboard cylinder
- 4 : Detonating cords
- 5 : Plastic explosive
- 6 : Test sample
- 7 : 4 mm hole drilled to receive split pin
- 8 : Split pin
- 9 : Wooden or plastic rod surrounded by 4
- 10 : Adhesive tape for securing 4 around 9

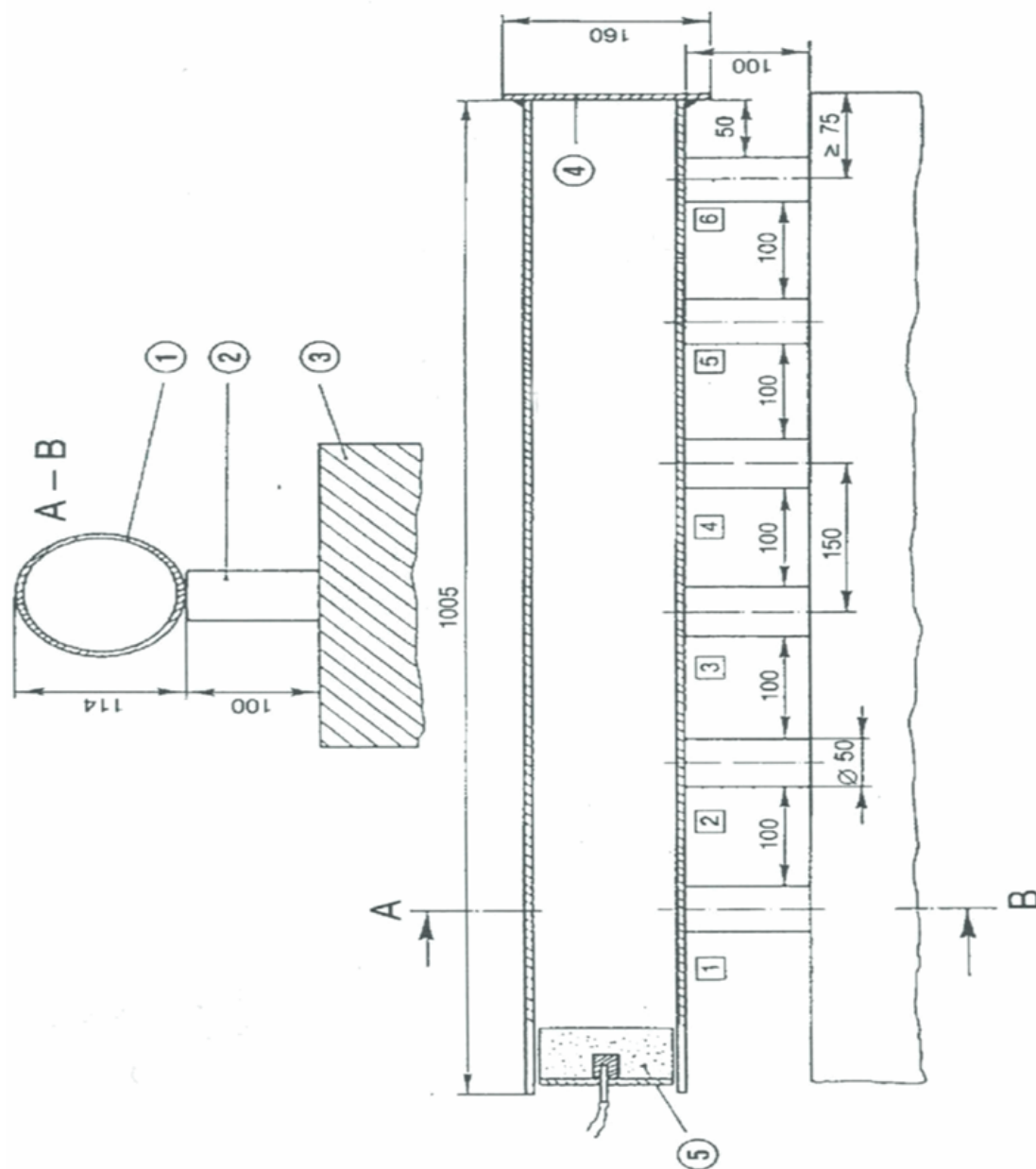
Figure 3



- 1 : Steel tube
- 2 : Wooden or plastic disc
- 3 : Plastic or cardboard cylinder

- 4 : Wooden or plastic rod
- 5 : Plastic explosive
- 6 : Compressed pellet
- 7 : Test sample
- 8 : 4 mm hole drilled to receive split pin
- 9 : Split pin
- 10 : Wooden or plastic die for 5

Figure 4



Numbers in circles:

- 1 : Steel tube
- 2 : Lead cylinders

- 3 : Steel block or stack of beams
- 4 : Bottom plate
- 5 : Booster charge

Numbers in squares:

Lead cylinders 1 to 6

- 5. CE marking and EU declaration of conformity
 - 5.1. The manufacturer shall affix the CE marking and, under the responsibility of the notified body referred to in point 4, the latter's identification number to each individual packaging of the EU fertilising product that satisfies the applicable requirements of this Regulation or, where it is supplied without packaging, in a document accompanying the EU fertilising product.
 - 5.2. The manufacturer shall draw up a written EU declaration of conformity for an EU fertilising product type and keep it together with the technical documentation at the disposal of the national authorities for 5 years after the EU fertilising product has been placed on the market. The EU declaration of conformity shall identify the EU fertilising product type for which it has been drawn up.
 - 5.3. A copy of the EU declaration of conformity shall be made available to the relevant authorities upon request.
- 6. Notified bodies' information and operational obligations
 - 6.1. Each notified body shall, without undue delay, inform its notifying authority and other bodies notified under this Regulation carrying out similar conformity assessment activities covering the same EU fertilising products of the following:
 - (a) any case where the manufacturer has not complied with the 3-month period for performing the tests required under point 4;
 - (b) any test results which demonstrate non-conformity with the detonation resistance requirement referred to in point 5 under PFC 1(C)(I)(a)(i-ii)(A) in Annex I.
 - 6.2. In the case referred to in point 6.1(b) the notified body shall request the manufacturer to take the necessary measures in accordance with Article 6(8).
- 7. Authorised representative

The manufacturer's obligations set out in points 4.4.7 and 5 may be fulfilled by his or her authorised representative, on his or her behalf and under his or her responsibility, provided that they are specified in the mandate.

- (1) The diameter of the disc must always correspond to the inside diameter of the cylinder.
- (2) NB: When the six peripheral lengths of cord are taut after assembly, the central cord must remain slightly slack.