

Annex 2

Technical requirements for printed ear tags for sheep, swine and goats

CHAPTER I

Technical requirements for Sheep ear tags

We offer the MultiFlex L/L of the CAISLEY product family MultiFlex. This high quality ear tag meets the requested technical requirement in all points.



MultiFlex L/L, for sheep, printed

1. General technical requirements

- 1.1. All ear tags of the MultiFlex-family, as well the offered MultiFlex L/L, are completely made of quality controlled thermoplastic polyurethane. All Parts of the ear tag are made of this base material, there are no other materials used. The material is specially designed to ensure the longevity and flexibility of the ear tag and not harm the animal's organism.
- 1.2. The ear tag will be attached with the Universal MultiFlex-Applicator placed between the cartilage strips in the first third of the ear of the animal. This allows for durable attachment and good visibility of the ear tag flags, both from the front and from behind the animal. The special material composition ensures a very good colour stability and a dark colour change during laser marking. Thus, a high contrast and a good readability is given, also from a distance.

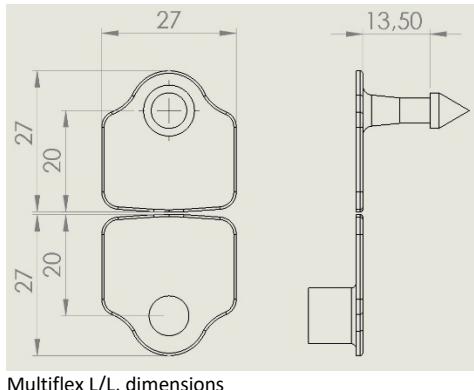
2. Shape and appearance

- 2.1. The offered MultiFlex L/L are yellow.
- 2.2. The ear tags will be printed according the specifications (Fig.2 of chapter 1 of the requirements (annex 2)) on the father part of the ear tag, with the number range indicated in the technical specifications table.
- 2.3. The ear tags meet the following conditions:
 - a. Every offered MultiFlex ear tags consists of two parts, one father part and one mother part;
 - b. The father part has a pin for piercing the ear;

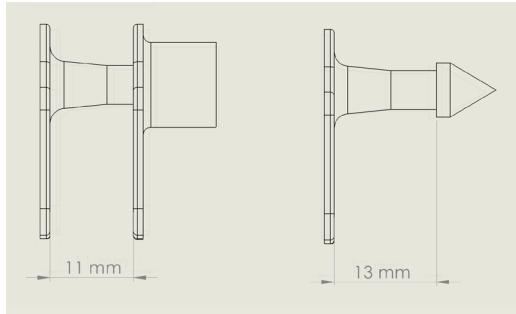
- c. At the tip of the pin is a very hard insert to allow a precise and easy penetration of the ear tissue. When attaching the ear tag the pin of the ear tag is supported from the inside by the metal pin of the applicator. The other parts of the ear tag are made of a high flexible material;
- d. The offered MultiFlex L/L tags have ventilation holes in the pin of the father part and an open designed mother part, so ventilation for a good wound healing is given;
- e. The tip of the pin has four cutting grooves, which also are designed to occur an easy and precise penetration of the tissue and a secure closing of the tag;
- f. The tip of the pin has an outer diameter of 7,2mm and is greater than the pole of the pin. This together with the accurate cutting principle of the locking-system of the MultiFlex ear tags occurs a clear ear hole that is greater than the pole of the pin, so the ear tag can rotate freely around the axis. The precise cutting and the design of the locking-system also allows the father part to rotate freely in the mother part;
- g. The mother part has a closed junction channel with 4 small air vents so ventilation is given for a better wound healing;
- h. It is easy and clear to insert the tag parts in the applicator. The two jaws of the pliers represent the respective shape of the father part and the mother part, so the ear tag parts can be inserted only in a specific position. Transposition is not possible;
- i. The offered tag MultiFlex L/L has a smooth design. All margins and corners of the tag are rounded to fit comfortably to the animal's body and cause no damage.

3. Size

3.1. The mother part of the offered MultiFlex L/L ear tag has a height of 27mm and a width of 27mm. The distance of the locking to the lower margin is 20mm. The father part has a height of 27mm and also a width of 27mm. That meets the requirements in Fig.1 of chapter 1 (annex 2).



3.2. The distance between the flag of the father part and the tip of the pin is 13,5mm so the distance of 11mm between the two connected parts is given.



Multiflex L/L, distance and pin length

- 3.3. The mother and the father part of the MultiFlex L/L have the same size and meet the required technical specifications (in Figure 1 of the requirements (Annex 2)) which means height and width are 27mm. The laser-printing is done exclusively on the father part.
- 3.4. The inscriptions on the ear tags shall contain the following information:
 - a. The acronym of the competent authority in capital letters or ANSA with a size of 3mm is indicated on the top of the ear tag;
 - b. The manufacturer's name 'CAISLEY' is indicated on the right side of the ear tag;
 - c. The bar code is placed below an acronym in a row with a height of 4.2mm;
 - d. To the left of the manufacturer's acronym is the ear tag's date of manufacture;
 - e. Below the barcode, 5 numbers with a size of 4,2mm are printed on a string representing the following: The first two are the ISO country code - MD, the next number is 1 - the species code and the remaining 2 numbers represent the first numbers of the animal's serial number. The size of this line is 4,2mm;
 - f. The last line of characters contains 7 numbers with a size of 4,8mm, which represent the last 7 numbers of the 9 numbers of the animal's serial number.
- 3.5. The identification code of the sheep consists of 12 characters that is mentioned in the databases, two letters followed by the numerical code consisting of 10 numbers, the characters having the following meaning:
 - a. the first two are letters and represent the country code, respectively MD;
 - b. the following is the species code, the number 1- for sheep;
 - c. the following 9 characters are numbers and represent the given serial number of the animal.

4. Technical performance

The offered MultiFlex L/L ear tag meets the technical performance requirements:

1. The ear tag is easily applicable with the Universal MultiFlex Applicator and no special skills of the user are required.
2. It is easy and clear to insert the tag parts in the applicator. The two jaws of the pliers represent the respective shape of the father part and the mother part, so the ear tag parts can be inserted only in a specific position. Transposition is not possible.
3. Applying the ear tag is only possible once. Every try to open the ear tag will cause a visible damage and a destruction of the locking system and it becomes impossible to use the tag twice.

4. Due to the ventilation hole in the pin, the design of the mother part with 4 small air vents, the free rotation of the two ear tag parts and the smooth design without sharp edges a good and fast wound healing are given. See external certificate of Sächsischer Landeskontrollverband e.V. in separate file.
5. The special design of the locking system of the MultiFlex causes a clean cut of the ear tissue. The pin of the father part has a circumferential, very hard cutting edge, which together with the mother part cuts the tissue cleanly and does not crush it by pressure. This ensures that no skin is pressed into the mother part.

5. Resistance to traction

- 5.1. The means of connection of the offered MultiFlex L/L withstand axially forces of minimum 300N. For at least seven years from joining the ear tag will resist higher forces than 300N.
- 5.2. After application it is not possible to separate the two parts of the tag without a permanently damaging of the means of connection and it is not possible to reassemble the parts. The tag can be applied only once.

6. Resistance to temperatures

- a. The offered MultiFlex L/L ear tag is made of a thermoplastic polyurethane and resists temperatures between -30°C and +40°C and has a very good weather-, UV- and microbial resistance.
- b. The used material doesn't get brittle at temperatures below 0°C.
- c. It is very robust and very hard to be torn or damaged.
- d. For a good performance of the ear tag it is necessary that the material of the tag is flexible and durable. The material that is used for CAISLEY's MultiFlex tags is extensive and constantly checked and meets these requirements.
- e. The material is absolutely innocuous.
- f. Because the entire ear tag is made of the same base material and does not contain other materials (such as metal), it can easily be recycled. The material comply with laws and regulations to recycling.
- g. The ear tag is not reusable. After application it is not possible to separate the two parts of the tag without a permanently damaging of the means of connection and it is not possible to reassemble the parts.
- h. The MultiFlex does not adversely affect the wound healing process. Due to the ventilation in the locking system, the free rotation of the two ear tag parts and the smooth design without sharp edges a good and fast wound healing is given.

7. Resistance to abrasion

MultiFlex have a very dark laser printing with a high contrast and it isn't possible to remove the printing by washing with water or solvents or by wiping with sandpaper. The long term experience of CAISLEY's MultiFlex shows that the printing resists all these effects longer than seven years from delivery.

Chapter II

Technical Requirements for Swine Ear Tags

We offer the MultiFlex P/P of the CAISLEY product family MultiFlex. This high quality ear tag meets the requested technical requirement in all points.



MultiFlex P/P, for swine, printed

1. General technical requirements

- 1.1. All ear tags of the MultiFlex-family, as well the offered MultiFlex P/P, are completely made of quality controlled thermoplastic polyurethane. All Parts of the ear tag are made of this base material, there are no other materials used. The material is specially designed to ensure the longevity and flexibility of the ear tag and not harm the animal's organism.
- 1.2. The ear tag will be attached with the Universal MultiFlex-Applicator placed between the cartilage strips at about half of the length of the animal's ear. This allows for durable attachment and good visibility of the ear tag flags, both from the front and from behind the animal. The special material composition ensures a very good colour stability and a dark colour change during laser marking. Thus, a high contrast and a good readability is given, also from a distance.

2. Shape and appearance

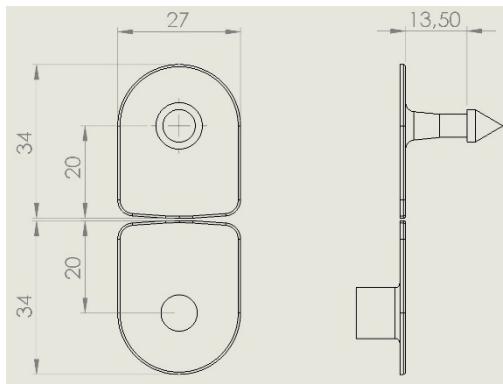
- 2.1. The offered MultiFlex P/P are yellow.
- 2.2. The ear tags will be printed according the specifications (Fig.4 of chapter 2 of the requirements (annex 2)) on the father part of the ear tag with the number range indicated in the technical specifications table.
- 2.3. The ear tags meet the following conditions:
 - a. Every offered MultiFlex ear tags consists of two parts, one father part and one mother part.
 - b. The father part has a pin for piercing the ear.
 - c. At the tip of the pin is a very hard insert to allow a precise and easy penetration of the ear tissue. When attaching the ear tag the pin of the ear tag is supported from the inside by the

metal pin of the applicator. The other parts of the ear tag are made of a high flexible material.

- d. The offered MultiFlex P/P tags have ventilation holes in the pin of the father part and closed designed mother part with 4 small air vents, so ventilation for a good wound healing is given.
- e. The tip of the pin has four cutting grooves, which also are designed to occur an easy and precise penetration of the tissue and a secure closing of the tag.
- f. The tip of the pin has an outer diameter of 7,2mm and is greater than the pole of the pin. This together with the accurate cutting principle of the locking-system of the MultiFlex ear tags occurs a clear ear hole that is greater than the pole of the pin, so the ear tag can rotate freely around the axis. The precise cutting and the design of the locking-system also allows the father part to rotate freely in the mother part.
- g. The mother part has a closed junction channel with 4 small air vents, so ventilation is given for a better wound healing.
- h. It is easy and clear to insert the tag parts in the applicator. The two jaws of the pliers represent the respective shape of the father part and the mother part, so the ear tag parts can be inserted only in a specific position. Transposition is not possible.
- i. The offered tag MultiFlex P/P has a smooth design. All margins and corners of the tag are rounded to fit comfortably to the animal's body and cause no damage.

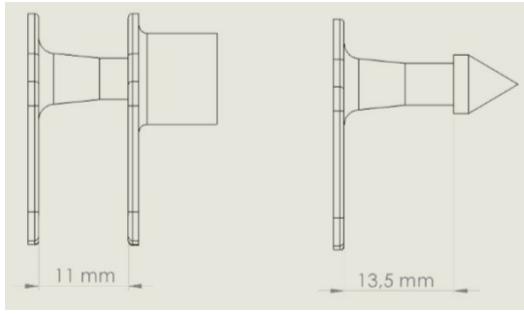
3. Size

3.1. The mother part of the offered MultiFlex P/P ear tag has a height of 34mm and a width of 27mm. The distance of the locking to the lower margin is 20mm. The father part has a height of 34mm and also a width of 27mm. That meets the requirements in Fig.3 of chapter 2 (annex 2 - technical drawing for swine ear tags).



MultiFlex P/P, dimensions

3.2. The distance between the flag of the father part and the tip of the pin is 13,5mm so the distance of 11mm between the two connected parts is given.



MultiFlex P/P, distance and pin length

- 3.3. The mother and the father part of the MultiFlex P/P have the same size and meet the required technical specifications (in Figure 3 of the requirements (Annex 2)) which means height is 34mm and width is 27mm. The laser-printing is done exclusively on the father part.
- 3.4. The inscriptions on the ear tags contain the following information:
 - a. The acronym of the competent authority in capital letters or ANSA with a size of 5mm is indicated on the top of the ear tag where the fastening system of the ear tag is provided.
 - b. The manufacturer's name 'CAISLEY' is indicated on the right side of the ear tag.
 - c. The bar code is placed below an acronym in a row with a size of 4,3mm.
 - d. To the left of the manufacturer's acronym is the ear tag's date of manufacture.
 - e. Below the barcode, 5 numbers with a size of 4,8mm are printed on a string representing the following: The first two are the ISO country code - MD, the next number is 3 - the species code and the remaining 2 numbers represent the first numbers of the animal's serial number. The size of this line is 4,8mm.
 - f. The last line of characters contains 7 numbers with a size of 5,3mm, which represent the last 7 numbers of the 9 numbers of the animal's serial number.
- 3.5. The identification code of the swine consists of 12 characters that are mentioned in the databases, two letters followed by the numerical code consisting of 10 numbers, the characters having the following meaning:
 - a. the first two are letters and represent the country code, respectively MD;
 - b. the following is the species code, the number 3- for pigs;
 - c. the following 9 characters are numbers and represent the given serial number of the animal.

4. Technical performance

The offered MultiFlex P/P ear tag meets the technical performance requirements.

- a. The ear tag is easily applicable with the Universal MultiFlex Applicator and no special skills of the user are required.
- b. It is easy and clear to insert the tag parts in the applicator. The two jaws of the pliers represent the respective shape of the father part and the mother part, so the ear tag parts can be inserted only in a specific position. Transposition is not possible.
- c. Applying the ear tag is only possible once. Every try to open the ear tag will cause a visible damage and a destruction of the locking system and it becomes impossible to use the tag twice.

- d. Due to the ventilation hole in the pin, the design of the mother part with 4 small air vents, the free rotation of the two ear tag parts and the smooth design without sharp edges a good and fast wound healing is given. See external certificate of Sächsischer Landeskontrollverband e.V. in separate file.
- e. The special design of the locking system of the MultiFlex causes a clean cut of the ear tissue. The pin of the father part has a circumferential, very hard cutting edge, which together with the mother part cuts the tissue cleanly and does not crush it by pressure. This ensures that no skin is pressed into the mother part.

5. Resistance to traction

- 5.1. The means of connection of the offered MultiFlex P/P withstand axially forces of minimum 300N. For at least seven years from joining the ear tag will resist higher forces than 300N.
- 5.2. After application it is not possible to separate the two parts of the tag without a permanently damaging of the means of connection and it is not possible to reassemble the parts. The tag can be applied only once.

6. Resistance to temperatures

- a. The offered MultiFlex P/P ear tag is made of a thermoplastic polyurethane and resists temperatures between -30°C and +40°C and has a very good weather-, UV- and microbial resistance.
- b. The used material doesn't get brittle at temperatures below 0°C.
- c. It is very robust and very hard to be torn or damaged.
- d. For a good performance of the ear tag it is necessary that the material of the tag is flexible and durable. The material that is used for CAISLEY's MultiFlex tags is extensive and constantly checked and meets these requirements.
- e. The material is absolutely innocuous.
- f. Because the entire ear tag is made of the same base material and does not contain other materials (such as metal), it can easily be recycled. The material comply with laws and regulations to recycling.
- g. The ear tag is not reusable. After application it is not possible to separate the two parts of the tag without a permanently damaging of the means of connection and it is not possible to reassemble the parts.
- h. The MultiFlex does not adversely affect the wound healing process. Due to the ventilation in the locking system, the free rotation of the two ear tag parts and the smooth design without sharp edges a good and fast wound healing is given.

7. Resistance to abrasion

MultiFlex have a very dark laser printing with a high contrast and it isn't possible to remove the printing by washing with water or solvents or by wiping with sandpaper. The long term experience of CAISLEY's MultiFlex shows that the printing resists all these effects longer than seven years from delivery.

CHAPTER III

Technical Requirements for Goats Ear tags

We offer the MultiFlex L/L of the CAISLEY product family MultiFlex. This high quality ear tag meets the requested technical requirement in all points.



MultiFlex L/L, for goats, printed

1. General technical requirements

- 1.1. All ear tags of the MultiFlex-family, as well the offered MultiFlex L/L, are completely made of quality controlled thermoplastic polyurethane. All Parts of the ear tag are made of this base material, there are no other materials used. The material is specially designed to ensure the longevity and flexibility of the ear tag and not harm the animal's organism.
- 1.2. The ear tag will be attached with the Universal MultiFlex-Applicator placed between the cartilage strips in the first third of the ear of the animal. This allows for durable attachment and good visibility of the ear tag flags, both from the front and from behind the animal. The special material composition ensures a very good colour stability and a dark colour change during laser marking. Thus, a high contrast and a good readability is given, also from a distance.

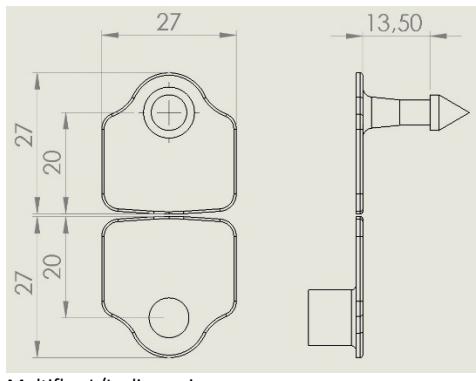
2. Shape and appearance

- 2.1. The offered MultiFlex L/L are white.
- 2.2. The ear tags will be printed according the specifications (Fig.6 of chapter 3 of the requirements (annex 2)) on the father part of the ear tag, with the number range indicated in the technical specifications table.
- 2.3. The ear tags meet the following conditions:
 - a. Every offered MultiFlex ear tags consists of two parts, one father part and one mother part.
 - b. The father part has a pin for piercing the ear.
 - c. At the tip of the pin is a very hard insert to allow a precise and easy penetration of the ear tissue. When attaching the ear tag the pin of the ear tag is supported from the inside by the metal pin of the applicator. The other parts of the ear tag are made of a high flexible material.

- d. The offered MultiFlex L/L tags have ventilation holes in the pin of the father part and a closed designed mother part with 4 small air vents, so ventilation for a good wound healing is given.
- e. The tip of the pin has four cutting grooves, which also are designed to occur an easy and precise penetration of the tissue and a secure closing of the tag.
- f. The tip of the pin has an outer diameter of 7,2mm and is greater than the pole of the pin. This together with the accurate cutting principle of the locking-system of the MultiFlex ear tags occurs a clear ear hole that is greater than the pole of the pin, so the ear tag can rotate freely around the axis. The precise cutting and the design of the locking-system also allows the father part to rotate freely in the mother part.
- g. The mother part has a closed junction channel with 4 small air vents, so ventilation is given for a better wound healing.
- h. It is easy and clear to insert the tag parts in the applicator. The two jaws of the pliers represent the respective shape of the father part and the mother part, so the ear tag parts can be inserted only in a specific position. Transposition is not possible.
- i. The offered tag MultiFlex L/L has a smooth design. All margins and corners of the tag are rounded to fit comfortably to the animal's body and cause no damage.

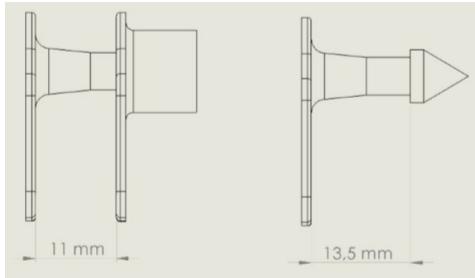
3. Size

3.1. The mother part of the offered MultiFlex L/L ear tag has a height of 27mm and a width of 27mm. The distance of the locking to the lower margin is 20mm. The father part has a height of 27mm and also a width of 27mm. That meets the requirements in Fig.5 of chapter 3, annex 2 - Technical drawing for goat's ear tags.



Multiflex L/L, dimensions

3.2. The distance between the flag of the father part and the tip of the pin is 13,5mm so the distance of 11mm between the two connected parts is given.



MultiFlex L/L, distance and pin length

- 3.3. The mother and the father part of the MultiFlex L/L have the same size and meet the required technical specifications (in Figure 5 of the requirements (Annex 2)) which means height and width are 27mm. The laser-printing is done exclusively on the father part.
- 3.4. The inscriptions on the ear tags shall contain the following information:
 - a. The acronym of the competent authority in capital letters or ANSA with a size of 3mm is indicated on the top of the ear tag.
 - b. The manufacturer's name 'CAISLEY' is indicated on the right side of the ear tag.
 - c. The bar code is placed below an acronym in a row with a size of 4.2mm.
 - d. To the left of the manufacturer's acronym is the ear tag's date of manufacture.
 - e. Below the barcode, 5 numbers with a size of 4,2mm are printed on a string representing the following: The first two are the ISO country code - MD, the next number is 2 - the species code and the remaining 2 numbers represent the first numbers of the animal's serial number. The size of this line is 4,2mm.
 - f. The last line of characters contains 7 numbers with a size of 4,8mm, which represent the last 7 numbers of the 9 numbers of the animal's serial number.
- 3.5. The identification code of the goat consists of 12 characters that is mentioned in the databases, two letters followed by the numerical code consisting of 10 numbers, the characters having the following meaning:
 - a. the first two are letters and represent the country code, respectively MD;
 - b. the following is the species code, the number 2- for goats;
 - c. the following 9 characters are numbers and represent the given serial number of the animal.

4. Technical performance

The offered MultiFlex L/L ear tag meets the technical performance requirements.

- a. The ear tag is easily applicable with the Universal MultiFlex Applicator and no special skills of the user are required.
- b. It is easy and clear to insert the tag parts in the applicator. The two jaws of the pliers represent the respective shape of the father part and the mother part, so the ear tag parts can be inserted only in a specific position. Transposition is not possible.
- c. Applying the ear tag is only possible once. Every try to open the ear tag will cause a visible damage and a destruction of the locking system and it becomes impossible to use the tag twice.

- d. Due to the ventilation hole in the pin, the design of the mother part with 4 small air vents, the free rotation of the two ear tag parts and the smooth design without sharp edges a good and fast wound healing are given. See external certificate of Sächsischer Landeskontrollverband e.V. in separate file.
- e. The special design of the locking system of the MultiFlex causes a clean cut of the ear tissue. The pin of the father part has a circumferential, very hard cutting edge, which together with the mother part cuts the tissue cleanly and does not crush it by pressure. This ensures that no skin is pressed into the mother part.

5. Resistance to traction

- 5.1. The means of connection of the offered MultiFlex L/L withstand axially forces of minimum 300N. For at least seven years from joining the ear tag will resist higher forces than 300N.
- 5.2. After application it is not possible to separate the two parts of the tag without a permanently damaging of the means of connection and it is not possible to reassemble the parts. The tag can be applied only once.

6. Resistance to temperatures

- a. The offered MultiFlex L/L ear tag is made of a thermoplastic polyurethane and resists temperatures between -30°C and +40°C and has a very good weather-, UV- and microbial resistance.
- b. The used material doesn't get brittle at temperatures below 0°C.
- c. It is very robust and very hard to be torn or damaged.
- d. For a good performance of the ear tag it is necessary that the material of the tag is flexible and durable. The material that is used for CAISLEY's MultiFlex tags is extensive and constantly checked and meets these requirements.
- e. The material is absolutely innocuous.
- f. Because the entire ear tag is made of the same base material and does not contain other materials (such as metal), it can easily be recycled. The material comply with laws and regulations to recycling.
- g. The ear tag is not reusable. After application it is not possible to separate the two parts of the tag without a permanently damaging of the means of connection and it is not possible to reassemble the parts.
- h. The MultiFlex does not adversely affect the wound healing process. Due to the ventilation in the locking system, the free rotation of the two ear tag parts and the smooth design without sharp edges a good and fast wound healing is given.

7. Resistance to abrasion

MultiFlex have a very dark laser printing with a high contrast and it isn't possible to remove the printing by washing with water or solvents or by wiping with sandpaper. The long term experience of CAISLEY's MultiFlex shows that the printing resists all these effects longer than seven years from delivery.

CHAPTER IV

Technical Requirements for Printed Ear Tags Packing

1. Sheep ear tags packing

- a. The offered MultiFlex L/L Tags for sheep will be delivered the father and mother parts both in strips of five pieces. Mother and father parts are prepacked separately into plastic bags with two compartments to 50 pieces. 200 plastic bags are packed into one box, so that a box contains ear tags for 1000 animals. A label on each plastic bag and box indicates the ear tag numbers contained, the order number, production date and personnel number for quality control and traceability.
- b. Each box has the complete range indicated, including the species code -1.

2. Swine ear tags packing

- a. The offered MultiFlex P/P Tags for swine will be delivered the father and mother parts both in strips of five pieces. Mother and father parts are prepacked separately into plastic bags with two compartments to 50 pieces. 200 plastic bags are packed into one box, so that a box contains ear tags for 1000 animals. A label on each plastic bag and box indicates the ear tag numbers contained, the order number, production date and personnel number for quality control and traceability.
- b. Each box has the complete range indicated, including the species code -3.

3. Goat's ear tags packing

- a. The offered MultiFlex L/L Tags for goat's will be delivered the father and mother parts both in strips of five pieces. Mother and father parts are prepacked separately into plastic bags with two compartments to 50 pieces. 200 plastic bags are packed into one box, so that a box contains ear tags for 1000 animals. A label on each plastic bag and box indicates the ear tag numbers contained, the order number, production date and personnel number for quality control and traceability.
- a. Each box has the complete range indicated, including the species code -2.

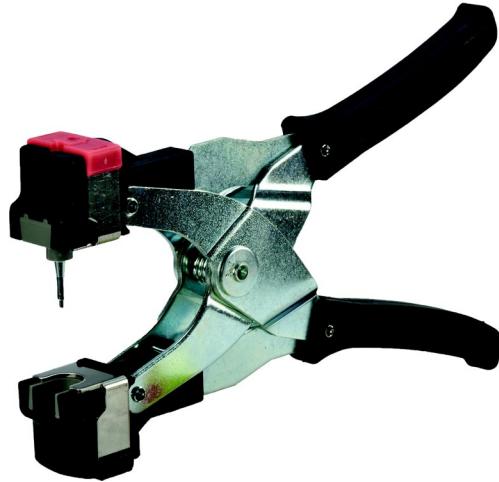
The offer will be accompanied by samples of the printed tags for each species.

CHAPTER V

Additional Requirements for all types of ear tags

Compatibility with the application equipment held by the beneficiary

1. All offered ear tags can be applied with the Universal MultiFlex Applicator. This Applicator is designed by CAISLEY to complement the good features and the benefit of the CAISLEY tags. It is compatible to the complete product range of FlexoPlus (bovine) and MultiFlex (sheep, goat, and swine). The Applicator and the tags are developed by CAISLEY so that is full compatibility guaranteed.
2. As stated in the accompanying letter, CAISLEY is the manufacturer of both, the offered ear tags and the applicator MultiFlex, specified in the technical requirements. We hereby guarantee the compatibility of all offered MultiFlex ear tags for sheep, goats and pigs are fully compatible with the specified applicator.



CAISLEY Universal Applicator