

10.7.5.2.1 Manufacturer requirements

At the commencement of the Preliminary assessment the manufacturer must deliver:

1. A sample of 120 ear tags marked with the reference printing applied using the same technique and style as used (or intended to be used) in the commercially marketed tags. Note: Tags used in this phase are likely to be destroyed during testing
2. ~~An additional 10 male components (pins) used to check reusability of broken and / or unfastened female ear tags.~~
3. Two pairs of tag applicators or equivalent devices supplied for the application of tags to animals.

Delete point 2.

10.7.5.2.3 Locking mechanism checks

The primary purpose of these tests is to verify that the male to female locking mechanism, once correctly applied using the supplied applicator, cannot be subsequently dismantled in such a way that would allow the tag to be re-used. A locked ear tag should be tamperproof so tampering with the locked tag will render the tag unusable.

'... that would allow the tag or one of the tag parts to be re-used. A locked ear tag should be tamperproof so tampering with the locked tag will render the tag unusable. ...'

10.7.5.2.5 Resistance of the locking system

The 80 ear tags of Group 1 will be divided into four groups of 20 tags. These four groups will be subjected to increasing forces to determine the force required to cause breakage or unfastening of the ear tag. The forces will be applied at a speed rate of 500 mm/min. The force applied to cause breakage or unfastening of each ear tag will be recorded. ~~Broken or unfastened tags must not be re-useable.~~

- Group 1: axial test at ambient conditions ($21^{\circ}\text{C} \pm 2^{\circ}$)
- Group 2: axial test at $55^{\circ}\text{C} \pm 2^{\circ}$, the forces will be applied immediately after the tags are removed from the heating or climatic chamber
- Group 3: transverse test at ambient conditions ($21^{\circ}\text{C} \pm 2^{\circ}$)
- Group 4: transverse test at $55^{\circ}\text{C} \pm 2^{\circ}$, the forces will be applied immediately after the tags are removed from the heating or climatic chamber.

Requirements

- Broken or unfastened tags must not be re-useable.
- At ambient conditions, axially tested tags designed to be used in cattle shall not break or unfasten with the application of a force lower than 280 Newton.
- At ambient conditions, axially tested tags designed to be used in sheep and / or goats shall not break or unfasten with the application of a force lower than 200 Newton.
- ~~The number of tags unlocked without breakage or sustaining permanent damage during the transverse test is recorded, and broken or unfastened tags must not be re-useable.~~

Delete sentence in the first paragraph – it's doubled to the first in "Requirements".
Delete "or unfasten" in bullet points 2 and 3.

Delete last bullet point in "Requirements".

Requirements

- None of the ear tags - neither male nor female part - must be re-usable. Male pin tips must break off and remain within the female caps (locking gap).
- At ambient ...'

10.7.5.3.4.3.3 Evaluation of the resistance of the locking system

30 new, untreated ear tags, 30 artificially aged ear tags and 30 ear tags submitted to the damp heat and cold treatment will be subjected to increasing forces to determine the force required to cause breakage or unfastening of the ear tag.

The test is performed at $-25^{\circ}\text{C} (\pm 2^{\circ})$, $21^{\circ}\text{C} (\pm 2^{\circ}\text{C})$ and $55^{\circ}\text{C} (\pm 2^{\circ}\text{C})$ combined with 50% RH (when the temperature is greater than 0°C) with 10 ear tags from the three treatment variations.

The forces will be applied at a rate of 500 mm/min immediately after the tags are removed from the climatic chamber. The force applied to cause breakage or unfastening of each ear tag will be recorded.

Broken or unfastened tags must not be re-useable. At $21^{\circ}\text{C} (\pm 2^{\circ}\text{C})$, no breakage or unfastening of an untreated ear tag should occur in:

- tags designed to be used in cattle with the application of a force lower than 280 Newton
- tags designed to be used in sheep and / or goats with the application of a force lower than 200 Newton

Additionally, the distortion occurring in the ear tag at the time of breakage or unfastening will be recorded during the tensile tests as an indicator for any changes in the mechanical properties of the plastic after exposure to the artificial ageing and the damp heat/cold treatments.

Delete half sentence as marked red.

'... will be recorded.

Requirements

- None of the ear tags – neither male nor female part – must be re-usable. Male pin tips must break off and remain within the female caps (locking gap).
- At 21°C (...), no breakage should occur in:
 - ...
 - ...
- The minimum breaking force applies to devices irrespective of treatments (artificial ageing, damp heat and cold).'

10.8.5.2.1 Manufacturer requirements

At the commencement of the Preliminary Assessment the manufacturer must deliver:

1. A sample of 120 RFID devices programmed with the reference ID codes and the reference printing. The printing must be applied using the same technique and style as used (or intended to be used) in the commercially marketed devices. Note: Devices used in this phase are likely to be destroyed during testing.
2. ~~An additional 10 male components (pins) used to check reusability of broken and / or unfastened female devices.~~
3. Two pairs of device applicators or equivalent devices supplied for the application of devices to animals.

Delete point 2.

10.8.5.2.2.1.3 Locking mechanism checks

The primary purpose of these tests is to verify that the male to female locking mechanism, once correctly applied using the supplied applicator, cannot be subsequently dismantled in such a way that would allow the tag to be re-used. A locked ear tag should be tamperproof so tampering with the locked tag will render the tag unusable.

'... that would allow the tag or one of the tag parts to be re-used. A locked ear tag should be tamperproof so tampering with the locked tag will render the tag unusable. ...'

10.8.5.2.2.1.5.1 Flag Tags

The 80 RFID ear tags of Group 1 will be divided into four sub-groups of 20 tags. Those four sub-groups will be subjected to increasing forces to determine the force required to cause breakage or unfastening of the ear tag. The forces will be applied at a speed rate of 500 mm/min. The force applied to cause breakage or unfastening of each ear tag will be recorded. ~~Broken or unfastened tags must not be re-useable.~~

- Group 1: axial test at ambient conditions 21°C (± 2°).
- Group 2: axial test at 55°C (± 2°); the forces will be applied immediately after the tags are removed from the heating or climatic chamber.
- Group 3: transverse test at ambient conditions 21°C (± 2°).
- Group 4: transverse test at 55 °C (± 2°)..

Requirements

- Broken or unfastened tags must not be re-useable.
- At ambient conditions, axially tested tags designed to be used in cattle shall not break or unfasten with the application of a force lower than 280 Newton.
- At ambient conditions, axially tested tags designed to be used in sheep and / or goats shall not break or unfasten with the application of a force lower than 200 Newton.
- ~~The number of tags unlocked without breakage or sustaining permanent damage during the transverse test is recorded, and broken or unfastened tags must not be re-useable.~~

Delete sentence in the first paragraph – it's doubled to the first in "Requirements".

Delete “or unfasten” in bullet points 2 and 3.

Delete last bullet point in “Requirements”.

‘Requirements

- None of the ear tags - neither male nor female part - must be re-usable. Male pin tips must break off and remain within the female caps (locking gap).
- At ambient ...’

10.8.5.2.2.1.5.2 Ear tags not classified as flag tags

The 40 RFID ear tags of Group 1 will be divided into two sub-groups of 20 tags. Those two sub-groups will be subjected to increasing forces to determine the force required to cause breakage or unfastening of the ear tag. The forces will be applied at a speed rate of 500 mm/min. The force applied to cause breakage or unfastening of each ear tag will be recorded. ~~Broken or unfastened tags must not be re-useable.~~

- Group 1: axial test at ambient conditions 21°C ($\pm 2^\circ$).
- Group 2: axial test at 55°C ($\pm 2^\circ$); the forces will be applied immediately after the tags are removed from the heating or climatic chamber.

Requirements

- Broken or unfastened tags must not be re-useable.
- At ambient conditions, axially tested tags designed to be used in cattle shall not break ~~or unfasten~~ with the application of a force lower than 280 Newton.
- At ambient conditions, axially tested tags designed to be used in sheep and / or goats shall not break ~~or unfasten~~ with the application of a force lower than 200 Newton.

Delete sentence in the first paragraph – it’s doubled to the first in “Requirements”.

Delete “or unfasten” in bullet points 2 and 3.

‘Requirements

- None of the ear tags - neither male nor female part - must be re-usable. Male pin tips must break off and remain within the female caps (locking gap).
- At ambient ...’

10.8.5.3.5.3 Resistance to tensile loading

This test applies to RFID ear tags only.

This test is done using 30 new ear tags, 30 artificially aged tags and 30 tags submitted to damp heat treatment. The test is performed at -25°C ($\pm 2^\circ$), 21°C ($\pm 2^\circ$) and 55°C ($\pm 2^\circ$) combined with 50% RH (when the temperature is greater than 0°C) with every 10 ear tags from the three treatment variations.

To test the tensile strength of the locking mechanism the ear tag is affixed to a test jig simulating its application and attempts are made to remove the ear tag by subjecting it to increasing forces. The class 1 tensile test machine shall operate at a speed rate of 500 mm/min and be capable of generating loads of up to 1,000 N.

An increasing load will be applied in axial direction. The maximum load and the effect(s) of the tensile force on the appearance and/or efficacy of the ear tags will be recorded. ~~Broken or unfastened tags must not be re-useable.~~

Requirements

- At ambient conditions ($21^{\circ}\text{C} \pm 2^{\circ}$), ear tags designed to be used in cattle shall not break ~~or unfasten~~ with application of a force lower than 280 Newton.
- At ambient conditions ($21^{\circ}\text{C} \pm 2^{\circ}$), ear tags designed to be used in sheep and / or goats shall not break ~~or unfasten~~ with the application of a force lower than 200 Newton.
- The minimum breaking force applies to devices irrespective of treatments (artificial aging, damp heat, etc.)

'... will be recorded.

Requirements

- None of the ear tags – neither male nor female part – must be re-usable. Male pin tips must break off and remain within the female caps (locking gap).
- At ambient conditions ($21^{\circ}\text{C} \dots$ ')

Delete "or unfasten" within the bullet points 1 and 2.