

## Annex 3

### Technical characteristics of transponders (microchips) for the horses species

#### 1. General technical characteristics

- 1.1. The offered injectable transponders ID K162/DS read-only produced by AEG ID can be used for electronic identification of horses, donkeys and descendants obtained by crossing them;
- 1.2. The Injected transponders ID K162/DS meet the following requirements:
  - a) The offered ID K162/DS is a passive read-only transponder without an internal source of electricity, consisting of an integrated circuit - a microchip in which a unique numeric code is encoded - and an antenna, both included of glass as a water-repellent material;
  - b) The identification code can only be read when the transponder is activated by the signal transmitted by the reader;
  - c) The envelope of the injected transponder is made of biocompatible glass, which ensures a rapid encapsulation and prevents its migration in the muscle tissue;
  - d) The offered injectable transponders ID K162/DS is programmed with customer specific data and starting with a country code. The uniqueness of the identification code is guaranteed by the provider. Programming is done in the factory by the manufacturer in accordance with Annex 3 (TECHNICAL REQUIREMENTS). The unique identification code is recorded in the manufacturer's production database. Repeated use of the unique number is excluded. This ensures the uniqueness of the transponder coding.;
  - e) The offered ID K162/DS is a read-only transponder. The unique identification code cannot be copied or modified;
  - f) The unique identification code is programmed and write-protected only by the provider when the offered transponder is manufactured;
  - g) The unique identification codes are programmed on the transponders with country code (498). The unique animal ID consists of 15 characters in accordance with Annex 3 (TECHNICAL REQUIREMENTS). The unique identification code is verified by the manufacturer when the transponder is programmed. After programming, the manufacturer verifies that these codes comply with the specifications in Annex 3. The unique identification code is by the manufacturer during the construction of the transponder recorded in the manufacturer's production database. Repeated use of the unique number is excluded. This ensures the uniqueness of the transponder coding.

#### 2. The shape and appearance of the transponders

- 2.1 The offered injectable transponder produced by AEG ID, as well the offered ID K162/DS, are completely made of quality controlled biocompatible glass. The material is specially designed to protect the injectable transponder against moisture, ensure the longevity and is harm the animal's organism;
- 2.2 The special biocompatible glass from which the ID K162/DS is made with an anti-slip surface. It disposes of the ability to integrate into the muscle tissue and prevent the transponders from migration. A special subcutaneous anti-migration treatment is not

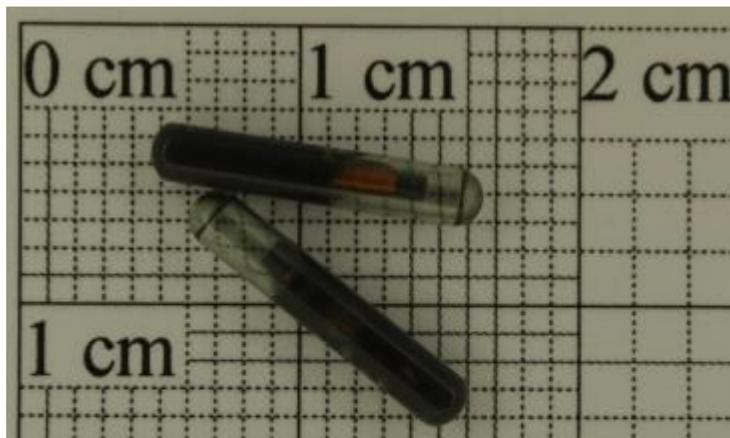
necessary, because the injectable transponders are injected into and supported by the muscle tissue when used correctly. A paralyne coating is not included in this offer.

Parylene coating is available as an option with additional costs.

- 2.3 The offered injectable transponder made from biocompatible glass are transparent;
- 2.4 The shape of offered injectable transponder is cylindrical as required.

### **3. The size of the transponders**

The transponders have the following dimensions: length 12 mm, diameter 2.12 mm. That meets the requirements of TECHNICAL REQUIREMENTS of chapter 3 (Annex 3).



### **4. Resistance**

1. The transponders offered are produced according to very high industrial standards for industrial transponders. "Datasheet - glass tags" contains the details of the manufacturer AEG ID. Water resistance according to IP 68 is given;
2. Vibration resistance according to IEC 68 PART 2-47 is given;
3. The transponders offered are produced according to very high industrial standards for industrial transponders. "Datasheet - glass tags" contains the details of the manufacturer AEG ID. Shock resistance according to IEC 68 PART 2-6/29 is given.

### **5. Technical performance requirements**

1. The offered injectable transponders ID K162/DS use FDX-B technology in accordance with ISO 11784 and ISO 11785 standards;
2. The injectable transponders ID K162/DS ISO 11784/85 FDX-B reading system read-only is legible with ISO 11785 compliant readers;

3. The reading distance is 20 cm when reading with a portable reader ARE H5 and 50 cm when reading with a stationary reader panel antenna AAN PT9S, all of which are manufactured by AEG ID;
4. The injectable transponders offered can transmit the correctly stored code under operating temperature conditions -25°C up to +85°C and humidity conditions between 40% rH and 80% rH;
5. The offered injectable transponders operate with the ISO FDX-B reading system at an activation frequency of 134.2 kHz;
6. The code of the transponder (injected) for the identification of horses, donkeys and descendants obtained by crossing them will consist of 15 characters, having the following meaning:
  - a) the first 3 characters indicate the country code, according to the ISO 3166 standard, for the Republic of Moldova this will be 498;
  - b) the next digit is 0 (zero);
  - c) the following digit will represent the species code of the animal, this being 4;
  - d) the following 10 characters after the country code (498), the digit 0 (zero) and the species code (4) represent the unique identification code.

## **6. Implant / syringe**

The injector used for the electronic identification of equidae have the following characteristics:

- a) The offered Injektable transponder ID K162/DS is a transponder designed for animal identification in compliance to ISO standards 11784/11785 for single used only so is this a disposable device.
- b) The offered Injektable transponder ID K162/DS have an ergonomic format for precise and safe handling during implantation;
- c) The offered injektable transponder ID K162/DS is provided with specific components:
  - single use implanter for one use only
  - no mounting required
  - individually packed in sterile packaging according to EN550,
  - cover protected needle of the implanter;
- d) The injektors packaging and the plastic needle cover play a preventive role in avoiding accidents, accidental loss of the transponder and involuntary actions;
- e) The sterile packaging of injektor made of paper and the plastic needle cover provides isolation of the implant needle and protect the transponder from loosing and bacteriological environment;
- f) The blister packaging is provided with 6 barcodes of the unique registration code of the electronic identification transponder. The labels are used for easy registration of the transponder and other processes;

## 7. Technical requirements for packaging of transponders (microchips)

The pre-packaging of the injectable transponder consists of 10 pieces, each in an injection needle, in a box? Each transponder is in a separate box with a transparent plastic sleeve and 6 self-adhesive labels labelled with the unique code of the chip, as shown in the pictures below.



a) The front part;



b) The back part.

The offer will be accompanied by 5 samples of the offered injectable transponders ID K162/DS for the identification of horses, donkeys and descendants obtained by crossing them.

1. The 10 samples in the pre-packaging are programmed with the manufacturer's code in accordance with ISO 11784 and ISO 11785 standards and show the packaging and labelling of the injectable transponder.

2. The single sample with number 498 04 99999 99999 is programmed with the country code According to „TECHNICAL REQUIREMENTS“ Annex 3 for test purposes:
  - a) the first 3 characters indicate the country code, according to the ISO 3166 standard, for the Republic of Moldova this being 498;
  - b) the next digit is 0 (zero);
  - c) the following digit will represent the species code of the animal, this being 4;
  - d) the following 10 characters after the country code (498), the digit 0 (zero) and the species code (4) represent the unique identification code -- are programmed with "9" as a placeholder for unique identification code, which we will be taken from Annex 3.