

NATURAL FIBER'S TECH

RESEARCH & DEVELOPMENT CENTER

FIBER MED V2.0

SMART ANIMAL FIBER ELECTRONIC MEDULLAMETER

Data Sheet



Brand : NFT Model. : V2.0

1. DESCRIPTION

The Smart animal fiber Medullameter, called FIBER MED, is a portable instrument that allows to determine the incidence of medullation in color fibers:

- No discoloration: white to light Brown.
- With discoloration: dark brown and black.

The results are expressing by type of fiber according to its medullation (alpaca, llama, vicuña, sheep, mohair, cashmere and camel).

This instrument uses the most modern artificial intelligence technology that allows to interpret digital images and thus provide information on the medullation and fiber diameter.

2. FUNCTIONALITY

Determine the following characteristics:

 The percentage and type of fibers according its medullation (Fibers Non medullated: NM, fragmented: FM, discontinuous: DM, continuous: CM, and strongly medullated: SM).

- The number of fibers evaluated, number of fibers with and within medulla and by type of medullation.
- The percentage of the total fiber diameter and by type of medullation.
- The total standard deviation of the average fiber diameter (SDMFD) and by type of fibers according to its medullation.
- The graph of the distribution of diameters according to the type of medullated and non-medullated fibers.

It allows enter an identification and description of the samples, the visualization of images and data, as well as the export and storage of images and data in an Excel sheet.

3. FEATURES

- Desktop/portable automatic device.
- Aluminum casing.
- Sample scanning area: 2cm x 4cm.
- Autofocus buttons.
- Led screen with internal clock and automatic temperature and humidity reader.
- With high-speed infrared light camera with CCD technology, optical collimator, and magnification lenses with movement in the X direction.



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 FIBER MED proprietary software with friendly graphical user interface (Installed on the computer), with new options to choose the animal species and configuration of custom diameter measurement ranges.

4. SYSTEMS

Consists of four (04) components:

• Electronic:

Composed of an electronic card that controls the lighting, sends and receives data from the computer, supplies the necessary energy to each electronic component and controls at least 2 motors to slide pieces of the equipment in the "X", "Y" axes in an appropriate way and synchronized.

Mechanic:

Composed of the "Y" coordinate table, optical system support, optical system movement toothed belts, slide support, linear guides, pap motors, pulley, casing, among others.

Optical:

It consists of a digital camera, magnifying lenses, diaphragm, led lenses, spacer and lighting. It is connected by a toothed belt to the "X" axis motor that allows it to move longitudinally in a transverse direction to that of the "Y" coordinate table.

Software:

Consisting of the set of algorithms and programming codes for digital image recognition. It is based on artificial intelligence technologies, and developed as part of FIBER MED. It is installed on a computer, and which allows evaluating the incidence of fiber medullation, expressed in number and percentage.

5. MAINTENANCE SERVICES

- On-site and remote support
- Software update.

6. ACCESORIES

- One (01) Hardy microtome.
- One (01) User's manual.
- Two (02) USB cable.
- Fiber fragments cutter.
- One (01) hundred of slides.
- One (01) power cable.
- One (01) hundred of coverslips.
- One (01) sample holder.
- One (01) dropper.
- One (01) stirring rod.
- Six (06) pattern sample.
- One (01) box specially adapted for moving the equipment.
- One (01) briefcase for accessories.

7. MORE INFORMATION

For more information about our products and services or visit our website: https://fiberstech.com/

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