

December 27, 2022

Xiros Ltd.
Steve Curran
Compliance Director
Springfield House Lane, Whitehouse Lane
Leeds, West Yorkshire LS17 7UE
United Kingdom

Re: K222978

Trade/Device Name: Poly-Tape/Infinity-Lock Soft Tissue Reinforcement Device

Regulation Number: 21 CFR 878.3300

Regulation Name: Surgical mesh

Regulatory Class: Class II

Product Code: QUW, OWX, FTL Dated: September 28, 2022 Received: September 28, 2022

#### Dear Steve Curran:

We have reviewed your Section 510(k) premarket notification of intent to market the device referenced above and have determined the device is substantially equivalent (for the indications for use stated in the enclosure) to legally marketed predicate devices marketed in interstate commerce prior to May 28, 1976, the enactment date of the Medical Device Amendments, or to devices that have been reclassified in accordance with the provisions of the Federal Food, Drug, and Cosmetic Act (Act) that do not require approval of a premarket approval application (PMA). You may, therefore, market the device, subject to the general controls provisions of the Act. Although this letter refers to your product as a device, please be aware that some cleared products may instead be combination products. The 510(k) Premarket Notification Database located at <a href="https://www.accessdata.fda.gov/scripts/cdrh/cfdocs/cfpmn/pmn.cfm">https://www.accessdata.fda.gov/scripts/cdrh/cfdocs/cfpmn/pmn.cfm</a> identifies combination product submissions. The general controls provisions of the Act include requirements for annual registration, listing of devices, good manufacturing practice, labeling, and prohibitions against misbranding and adulteration. Please note: CDRH does not evaluate information related to contract liability warranties. We remind you, however, that device labeling must be truthful and not misleading.

If your device is classified (see above) into either class II (Special Controls) or class III (PMA), it may be subject to additional controls. Existing major regulations affecting your device can be found in the Code of Federal Regulations, Title 21, Parts 800 to 898. In addition, FDA may publish further announcements concerning your device in the <u>Federal Register</u>.

Please be advised that FDA's issuance of a substantial equivalence determination does not mean that FDA has made a determination that your device complies with other requirements of the Act or any Federal statutes and regulations administered by other Federal agencies. You must comply with all the Act's requirements, including, but not limited to: registration and listing (21 CFR Part 807); labeling (21 CFR Part

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801); medical device reporting (reporting of medical device-related adverse events) (21 CFR 803) for devices or postmarketing safety reporting (21 CFR 4, Subpart B) for combination products (see <a href="https://www.fda.gov/combination-products/guidance-regulatory-information/postmarketing-safety-reporting-combination-products">https://www.fda.gov/combination-products/guidance-regulatory-information/postmarketing-safety-reporting-combination-products</a>); good manufacturing practice requirements as set forth in the quality systems (QS) regulation (21 CFR Part 820) for devices or current good manufacturing practices (21 CFR 4, Subpart A) for combination products; and, if applicable, the electronic product radiation control provisions (Sections 531-542 of the Act); 21 CFR 1000-1050.

Also, please note the regulation entitled, "Misbranding by reference to premarket notification" (21 CFR Part 807.97). For questions regarding the reporting of adverse events under the MDR regulation (21 CFR Part 803), please go to <a href="https://www.fda.gov/medical-devices/medical-device-safety/medical-device-reporting-mdr-how-report-medical-device-problems">https://www.fda.gov/medical-device-problems</a>.

For comprehensive regulatory information about medical devices and radiation-emitting products, including information about labeling regulations, please see Device Advice (<a href="https://www.fda.gov/medical-devices/device-advice-comprehensive-regulatory-assistance">https://www.fda.gov/training-and-continuing-education/cdrh-learn</a>) and CDRH Learn (<a href="https://www.fda.gov/training-and-continuing-education/cdrh-learn">https://www.fda.gov/training-and-continuing-education/cdrh-learn</a>). Additionally, you may contact the Division of Industry and Consumer Education (DICE) to ask a question about a specific regulatory topic. See the DICE website (<a href="https://www.fda.gov/medical-devices/device-advice-comprehensive-regulatory-assistance/contact-us-division-industry-and-consumer-education-dice">https://www.fda.gov/medical-devices/device-advice-comprehensive-regulatory-assistance/contact-us-division-industry-and-consumer-education-dice">https://www.fda.gov/medical-devices/device-advice-comprehensive-regulatory-assistance/contact-us-division-industry-and-consumer-education-dice</a>) for more information or contact DICE by email (<a href="DICE@fda.hhs.gov">DICE@fda.hhs.gov</a>) or phone (1-800-638-2041 or 301-796-7100).

Sincerely,

# Laura C. Rose -S

Laura C. Rose, Ph.D.
Assistant Director
DHT6C: Division of Restorative, Repair
and Trauma Devices
OHT6: Office of Orthopedic Devices
Office of Product Evaluation and Quality
Center for Devices and Radiological Health

Enclosure

#### DEPARTMENT OF HEALTH AND HUMAN SERVICES Food and Drug Administration

# **Indications for Use**

510(k) Number (if known)

Form Approved: OMB No. 0910-0120 Expiration Date: 06/30/2023

See PRA Statement below.

Device Name Poly-Tape/Infinity-Lock Soft Tissue Reinforcement Device
Indications for Use (Describe)
The Poly-Tape/Infinity-Lock Soft Tissue Reinforcement Device is a single use device intended for reinforcement of soft tissues that are repaired by suture or other fixation devices during tendon and ligament repair surgery including reinforcement of rotator cuff, patellar, Achilles, biceps, quadriceps tendon, medial collateral ligament, lateral collateral ligament, spring ligament, deltoid ligament, ulnar collateral ligament or other tendons or extra-articular ligaments.
The Poly-Tape/Infinity-Lock Soft Tissue Reinforcement Device is not intended to replace normal body structure or provide the full mechanical strength to support the rotator cuff, patellar, Achilles, biceps, quadriceps tendon, medial collateral ligament, lateral collateral ligament, spring ligament, deltoid ligament, ulnar collateral ligament or other tendons or extra-articular ligaments. Sutures, used to repair the tear, and sutures or other fixation devices, used to attach the tissue to the bone, provide mechanical strength for the repair.
Type of Use (Select one or both, as applicable)
Prescription Use (Part 21 CFR 801 Subpart D) Over-The-Counter Use (21 CFR 801 Subpart C)
CONTINUE ON A SEPARATE PAGE IF NEEDED

This section applies only to requirements of the Paperwork Reduction Act of 1995.

#### \*DO NOT SEND YOUR COMPLETED FORM TO THE PRA STAFF EMAIL ADDRESS BELOW.\*

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# 510(k) Summary; K222978

# Poly-Tape/Infinity-Lock Soft Tissue Reinforcement Device

#### **Submitter Information**

Submitter: Xiros, Ltd

Address: Springfield House

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Leeds

West Yorkshire LS19 7UE

UK

*Telephone:* +44(0)1132387200 *Fax:* +44(0)1132387201

Contact: Dr. Steve Curran
Date Prepared: September 28, 2022

#### **Device Information**

Trade Name: Poly-Tape/Infinity-Lock Soft Tissue Reinforcement Device

Common Name: Surgical Mesh

Classification: Class II

*Regulation:* 21 CFR 878.3300

Classification Name: Mesh, Surgical, Non-resorbable, Orthopedics, Reinforcement of

Ligament

Classification Panel: Othopedic

Product Code: QUW, OWX, FTL

#### **Predicate/Reference Device Information**

The Poly-Tape/Infinity Lock Soft Tissue Reinforcement Device described in this submission is substantially equivalent to the following predicate devices:

BioBridge<sup>TM</sup> Collagen Matrix (K151083)

Poly-Tape/Infinity-Lock Soft Tissue Reinforcement Device (K220091) - Reference Device

## **Device Description**

The Poly-Tape/Infinity-Lock Soft Tissue Reinforcement Device (Poly-Tape/Infinity-Lock) is a woven tape made from Polyethylene Terephthalate (PET) also referred to as polyester. This a nonabsorbable material that has a long history of use in the orthopedic market. The Poly-Tape/Infinity-Lock is a permanent implantable device for the reinforcement of soft tissues that are repaired by suture or other fixation devices during soft tissue repair surgery.

#### **Intended Use/Indications for Use**

The Poly-Tape/Infinity-Lock Soft Tissue Reinforcement Device is a single use device intended for reinforcement of soft tissues that are repaired by suture or other fixation devices during tendon and ligament repair surgery including reinforcement of rotator cuff, patellar, Achilles, biceps, quadriceps tendon, medial collateral ligament, lateral collateral ligament, spring ligament, deltoid ligament, ulnar collateral ligament or other tendons or extra-articular ligaments.

The Poly-Tape/Infinity-Lock Soft Tissue Reinforcement Device is not intended to replace normal body structure or provide the full mechanical strength to support the rotator cuff, patellar, Achilles, biceps, quadriceps tendon, medial collateral ligament, lateral collateral ligament, spring ligament, deltoid ligament, ulnar collateral ligament or other tendons or extra-articular ligaments. Sutures, used to repair the tear, and sutures or other fixation devices, used to attach the tissue to the bone, provide mechanical strength for the repair.

## Comparison of Principles of Operation & Technological Characteristics

The Poly-Tape device has the same principles of operations as the predicate devices. They are all implants intended for the reinforcement of soft tissues that are repaired by suture or other fixation devices. The devices are used in various surgical procedures where soft tissue reinforcement is needed.

At a high level, the subject and predicate devices are based on the following same technological elements:

- Surgical Mesh
- Implant shares the load placed on the primary repair and provides a structural scaffold for torn or damaged soft tissue
- Provides consistent reinforcement during healing period
- may be cut to size to meet the surgeon's preference

The following technological differences exist between the subject and predicate devices:

• Subject device is non-resorbable

#### **Performance Data**

The following performance testing has been completed for the Poly-Tape/Infinity-Lock Soft Tissue Reinforcement Device:

- Suture Retention Testing
- Ultimate Strength Testing
- Cyclic Testing
- Packaging Testing
- Biocompatibility Testing

The series of tests, listed above, has been conducted and successfully completed. The results demonstrate that the Poly-Tape/Infinity-Lock provides adequate mechanical properties for its use in soft tissue reinforcement.

The performance data benefit/risk analysis concluded that the differences encountered do not affect the safety and efficac6y of the new device in relation to the predicate.

Xiros conducts routine endotoxin (LAL) batch testing to monitor endotoxin levels.

## Conclusion

Based on the above information the Poly-Tape/Infinity-Lock is substantially equivalent to soft tissue reinforcement predicate device:

BioBridge<sup>TM</sup> Collagen Matrix (K151083)