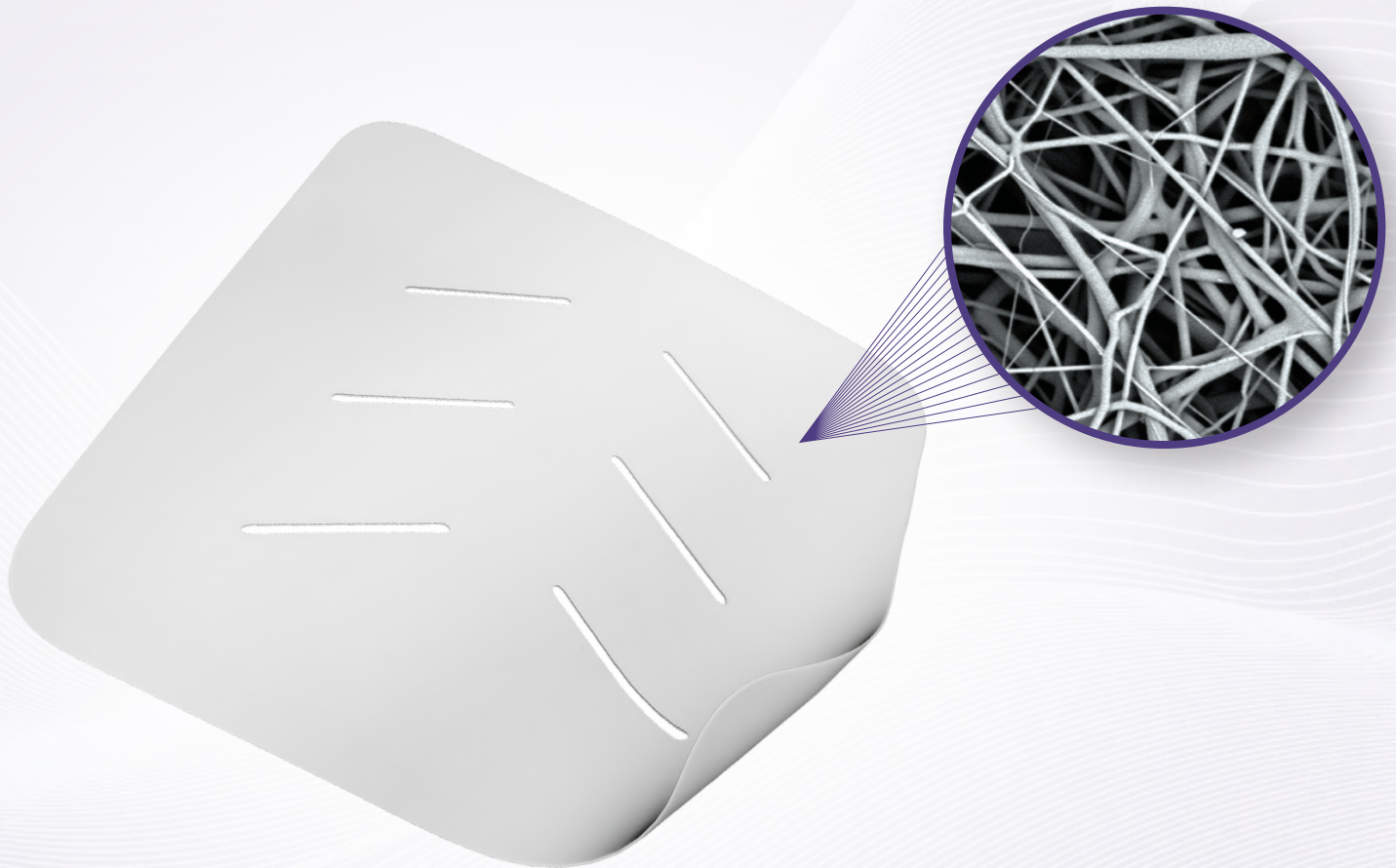




PHOENIX

Wound Matrix®

ELECTROSPUN SYNTHETIC MATRIX
FOR FULL TO PARTIAL-THICKNESS WOUNDS



AUTOBIOLOGIC™ SCAFFOLDS: POWERING THE HEALING RESPONSE

An **UNMET NEED** in Wound Healing



PHOENIX
Wound Matrix®

Chronic and complex wounds pose a significant clinical challenge. If a balanced, reparative environment is not restored, wounds are at an increased risk of chronic inflammation, delayed healing, and complications such as infection and dehiscence.

Redefining the **MICROENVIRONMENT**

PHOENIX is a bioresorbable and microporous synthetic scaffold designed to:

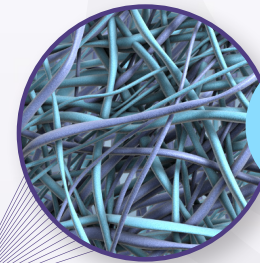
- » Support a stable healing cascade
- » Stimulate a **low-pH** microenvironment
- » Promote the **reestablishment of a balanced microbiome** capable of native tissue regranulation

Bioresorbable

Natural resorption via hydrolysis over 10–14 days

Robust Handling Characteristics

Thickness: 0.2mm
Accommodates suture if needed



PGA

PLCL

Electrospun Matrix Design

PGA: Poly-glycolic acid
PLCL: Poly-lactide co-caprolactone



Promotes Tissue Granulation

- Transforms and reduces wound pH levels to pro-healing state
- Modulates inflammation
- Facilitates homeostasis



Design Facilitates Ease of Use

- Fenestration accommodates wound exudate and compatibility with NPWT*
- Easily conforms to complex wound beds
- Durable & visible to enable repositioning



100% Synthetic Polymers

- No human or animal components
- No tissue tracking or special storage requirements
- No contraindications
- Consistent quality & biocompatibility



Bioresorbable Barrier Membrane

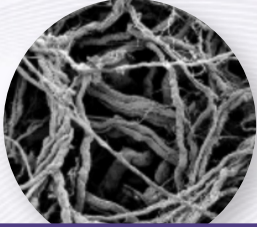
- Matrix porosity provides a barrier to protect against microorganisms & biofilm formation
- Mimics native extracellular matrix

*Negative Pressure Wound Therapy

MICROENVIRONMENT OPTIMIZATION

Powered by Synthetics

Sophisticated design mimics the native extracellular matrix to facilitate and optimize **cellular infiltration, proliferation, and remodeling** through a natural reparative process.



Native Dermal ECM



PHOENIX Wound Matrix



Cell Migration & Infiltration



Cell Proliferation

Specific Polymer Composition PROMOTES HEALING ENVIRONMENT

Sustained release of bioactive contributors from PGA and PLCL transform pH, modulate inflammation, and fuel cellular activity to promote a favorable healing environment for tissue repair.



Glycolic Acid

- Promotes fibroblast proliferation & collagen expression
- Modulates inflammation

Lactic Acid

- Stimulates angiogenesis
- Promotes ECM deposition
- Fuels cellular activity

Caproic Acid

- Modulates inflammation
- Addresses bacterial & fungal contaminants

DEMONSTRATED EFFICACY

Strong Early Wound Area Reduction with Meaningful and Durable Healing

Complex patient population with severe comorbidities

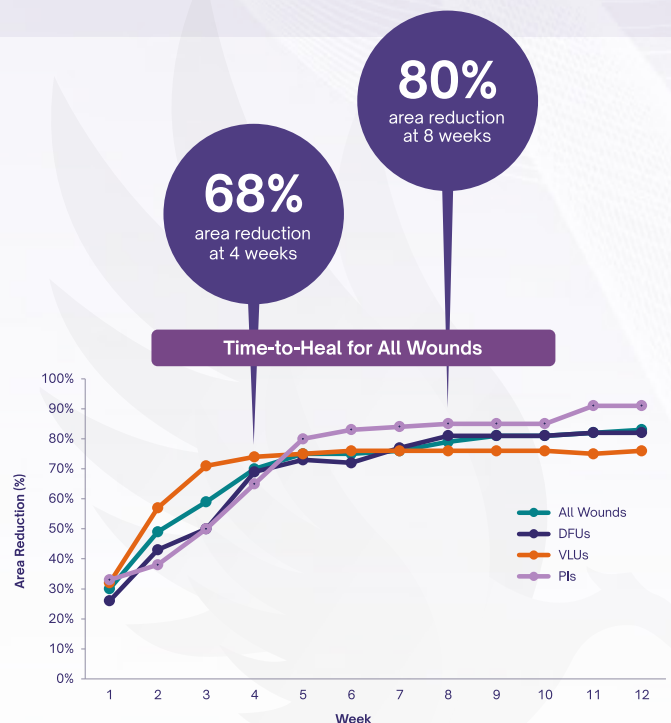
- 50 heterogeneous refractory wounds

Demonstrated acceleration of healing process

- Time to heal similar for all wounds, healing in < 8 wks average

Consistent healing trajectory, regardless of wound etiology

≤ 2 applications of PHOENIX Wound Matrix (3DESPM2) were used to treat majority of wounds



Quick Application Guide



Prepare the Wound Bed

Prepare the wound using standard methods to promote homeostasis and ensure it is free of debris and necrotic tissue.



Apply PHOENIX Wound Matrix

The matrix may be trimmed to accommodate the area of application. Once applied, the matrix may be smoothed, repositioned, and rinsed with sterile saline (as needed) to ensure conformity to the wound bed.



Affix Wound Matrix (Optional)

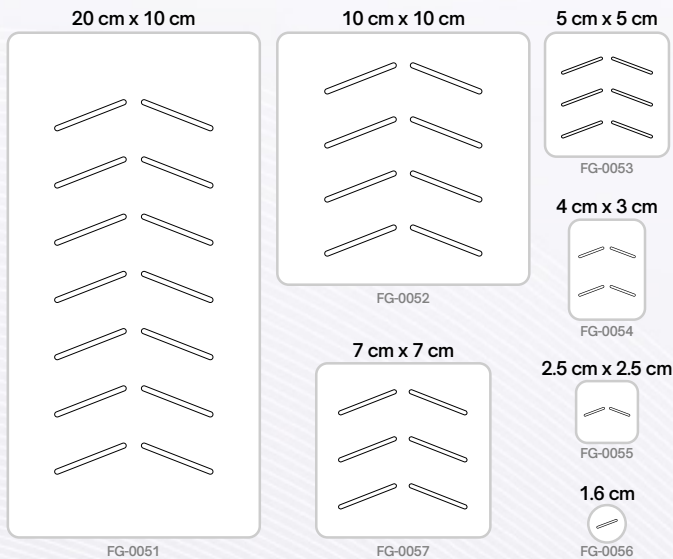
The matrix may be affixed to the wound using staples, sutures, surgical glue or reinforced adhesive skin closures (i.e. Steri-Strip™) as needed.



Non-Adherent Dressing

Apply an appropriate non-adherent dressing and/or secondary dressing to maintain graft adherence, protect the wound and manage the wound environment. Additional bandaging may be applied as needed.

Adaptable and Versatile



FDA 510(k) approved for use:

- Partial and full-thickness wounds
- Pressure ulcers, VLU, DFUs, chronic vascular ulcers
- Surgical wounds (donor sites/grfts, wound dehiscence)
- Trauma wounds (abrasions, lacerations, burns, skin tears)
- Tunneled, undermined or draining wounds

Real-world clinical applications:

Revision arthroplasty, limb salvage, necrotizing fasciitis, and trauma surgery



Atreon Orthopedics designs synthetic biomaterials that work seamlessly with the body's natural repair process. Our portfolio of Autobiologic matrices is engineered to optimize the cellular microenvironment, promote native tissue remodeling and deliver stronger, more reliable long-term outcomes.

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For complete list of references and study details visit www.renovoderm.tech

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