





### Ingenious Versatility in Surgery

Collagen fleece from horse tendons for safe local hemostasis



### Safety through purity

The use of collagen fibrils of equine origin (horse Achilles' tendons) and careful reduction of non-collagen constituents have resulted in a product that offers maximum safety.



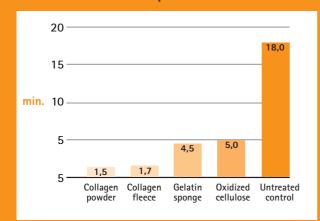
## Benefits of collagen in wound healing:

- Biocompatibility
  - · Can be broken down and incorporated
  - · Biological matrix
  - · Promotes attachment and proliferation of cells
  - · Soft tissue base
- Biodegradability
- Incorporation capacity
- Permeability
- Osteoconductivity
- Angioconductivity
- ph stability
- Proven low antigenicity
- Allows proteins to latch on

#### Features:

- Having low or no immunogenicity, collagen is an established biomaterial in medicine.
- KOLLAGEN resorb<sup>™</sup> has a favorable impact on blood clotting (promotes platelet aggregation).
- Collagen not only acts as a matrix for cells to adhere to (thus aiding blood clotting), it also exerts a chemotactic stimulus.
- Its structure enables collagen to absorb large amounts of fluid.
- This purely mechanical process of absorption of secretions enables collagen to absorb debris, bacteria, fibrin deposits and other undesirable materials.
- KOLLAGEN resorb™ is dimensionally stable and can be applied to open wound areas either dry or after wetting (e.g. using saline).

# Bleeding Time From Standardized Spleen Wound:

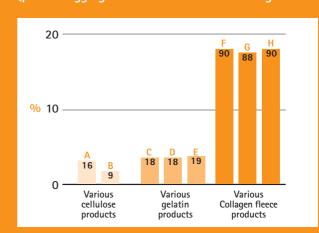


Collagen fleeces or powders have proved to be clearly more effective than gelatin sponges or cellulose. They are rapidly and completely absorbed by the body, with native collagen additionally promoting granulation and epithelialization.

Figure modified from a table from: Source: Silverstein ME, Facs, Chvapil M (1981) Experimental and clinical experiences with collagen fleece as a hemostatic agent

#### Extent of Aggregation:

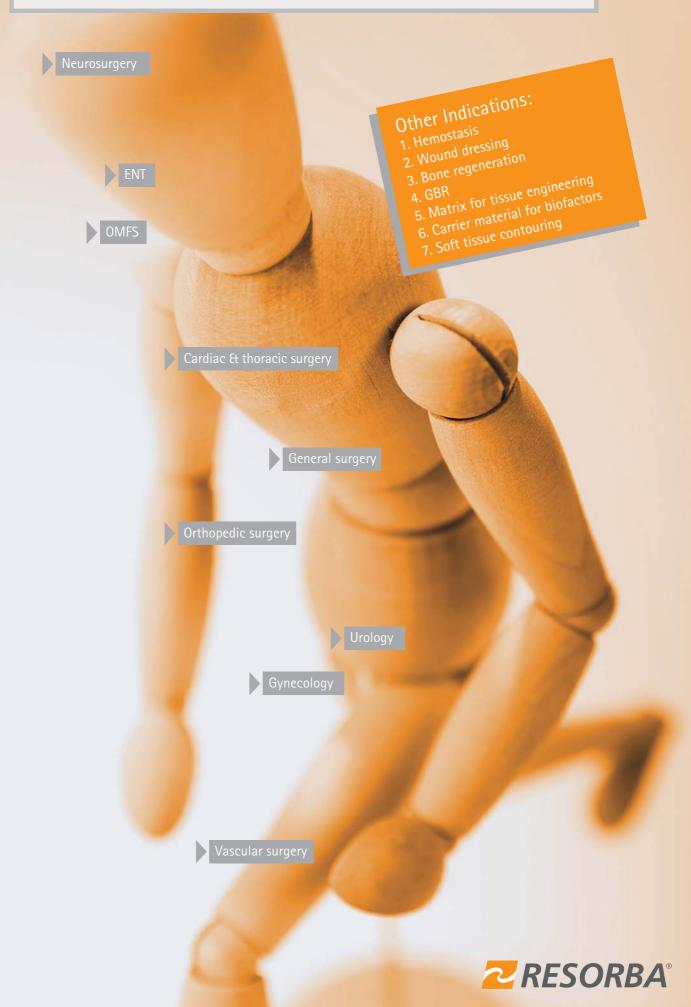
Five minutes after contact with various wound dressings (platelet aggregation was determined from light transmittance):



Collagen fleece products are significantly more effective at inducing platelet aggregation.

Source: Stemberger A, Ascherl R, Scherer MA, Kaufer C, Pfeffer M, Blümel G (1992) Hämostyptika in der Chirugie – in vitro Untersuchungen zur Stimulierung der Blutgerinnung sowie Festigkeit in Kombination mit Fibrinklebung Inc Gebhardt C(ed) Fibrinklebung in der Allgemein– und Unfallchirurgie, Orthopädie Kinder – und Thoraxchirurgie Springer Verlag, Berlin, pp. 27–36.

## $\mathsf{KOLLAGEN}\ \mathit{resorb}^\mathsf{TM}\ \mathsf{Ingenious}\ \mathsf{and}\ \mathsf{versatile}$







#### Dimensions and pack sizes:

KOLLAGEN resorb™ Sterile cavity and wound dressing, local hemostatic agent

REF	Dimensions	No. of units
RK 1836	1.8 x 3.6 cm	12
RK 9001	7 x 3 cm	5
RK 9011	9 x 7 cm	5
RK 1209	12 x 9 cm	5

1 cm<sup>2</sup> KOLLAGEN resorb<sup>™</sup> contains 2,8 mg of equine, native collagen fibrils

