SpeedM®

Made in Germany | **CE 0482** | MDR certified

Emergency Hemostatic Dressing

Don’t take risks. Take SpeedM®

The first choice for hemostasis.

Third-generation, mineral-based hemostasis with halloysite – for severe bleeding where other techniques are not feasible.



Speed Care Mineral

Every minute counts.

40%

of pre-hospital trauma deaths are caused by bleeding[1]

#1

leading cause of preventable death in combat trauma – #2 in civilian trauma[1]

43%

of seriously injured patients are hypothermic on hospital admission[1]



Beyond the tourniquet

In life-threatening bleeding, a few minutes decide over life and death. Junctional and non-compressible bleeding is a major challenge, because tourniquets are ineffective or cannot be applied. Here, packing the wound with a hemostatic dressing is one of the most effective methods of stopping the bleeding.

Built for these situations

When bleeding is diffuse and other techniques are not feasible, an emergency hemostatic dressing is often the only option. SpeedM® provides easy-to-use hemostatic technology – optimized for tactical medicine, casualty care and modern emergency medicine. It is also well suited for tourniquet conversion.

TWO FACTORS THAT MAKE BLEEDING HARDER TO CONTROL

Hypothermia

Part of the “trauma triad of death” with acidosis and coagulopathy. Blood clots more slowly, stable clots form later, bleeding lasts longer.

Anticoagulation

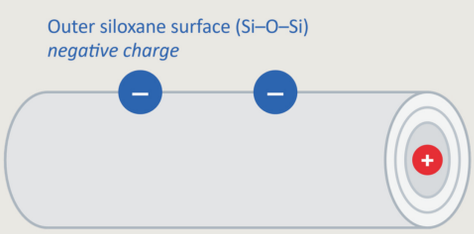
A growing share of trauma patients take blood thinners. Agents that rely on clotting factors may be less effective.

Is it rocket science? It's rock science.

Clay minerals have been known for their hemostatic effect for decades.[1] **Halloysite** is a naturally occurring clay mineral, rolled into tiny tubes by geothermal processes.[2] For medical use, high purity is essential: Speed Care Mineral specializes in mineral processing and refinement, and a complex, tightly controlled process turns halloysite into a medically usable material.



Halloysite tube



– outside / + inside
opposite charges on outer and inner surface[2]

Water uptake
the tubes draw water from the blood, concentrating the clotting components[1]

Huge surface
countless tiny tubes give a large contact area for platelets[2]

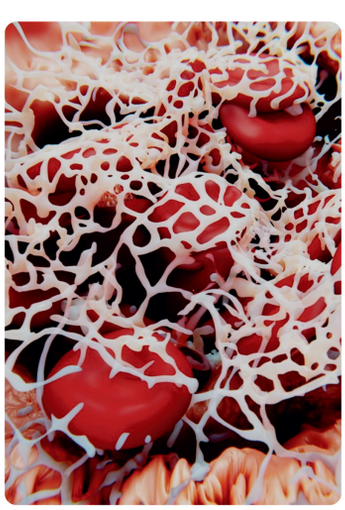
Natural & safe
non-toxic, biocompatible; U.S. EPA-listed inert ingredient

Non-cytotoxic
does not damage cells

Layered silicate
$Al_2Si_2O_5(OH)_4 \cdot 2H_2O$, kaolin family – but tube-shaped[2]

No proteins
no animal or human proteins, no shellfish

Physical mode of action

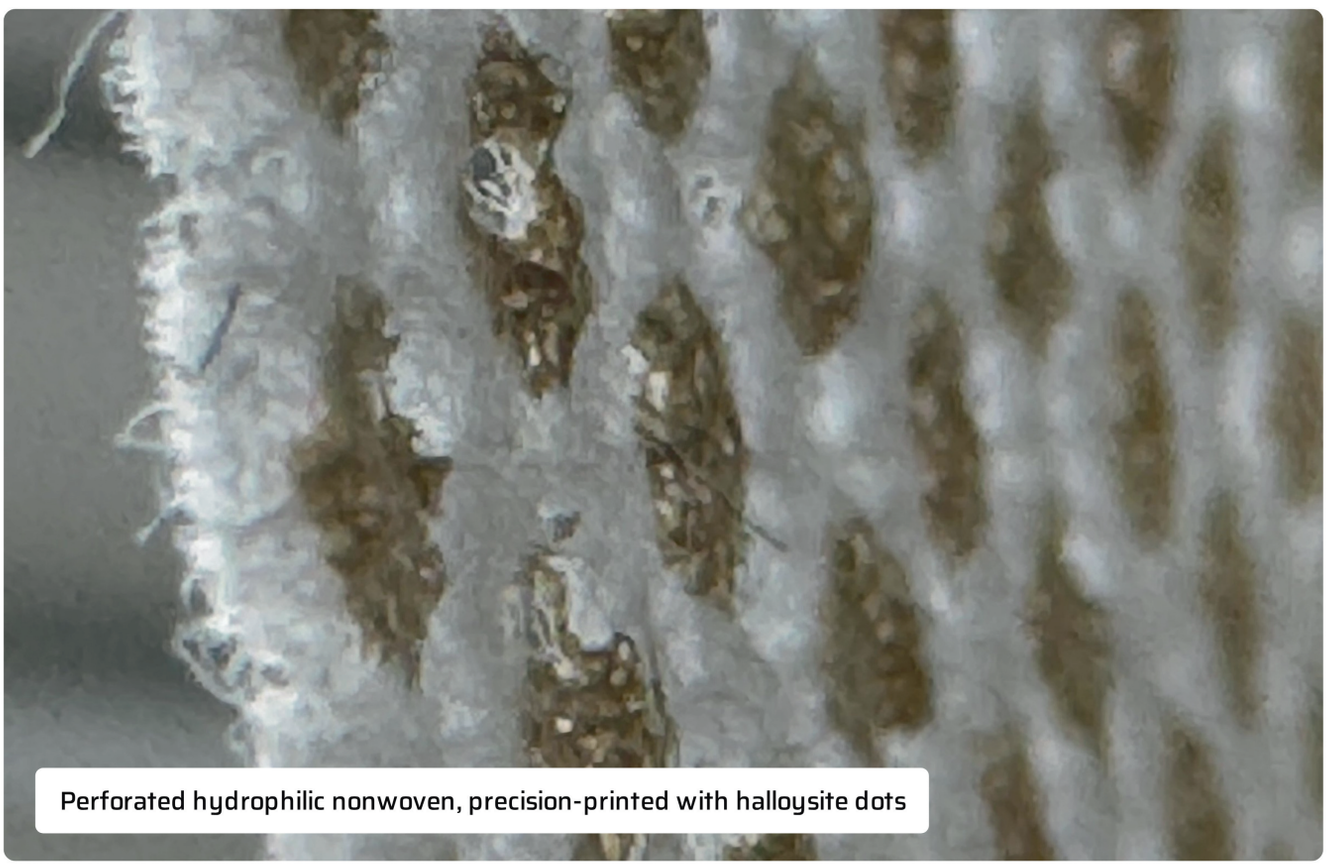


- **Water uptake**
  On contact with blood, water is drawn into the tubes and the porous gauze.[1]
- **Adhesion**
  The negatively charged tube surface attracts platelets and speeds up their aggregation.[1,3]
- **Concentration**
  Platelets are concentrated at the bleeding site.
- **Clot formation**
  A white thrombus forms and ideally seals the vascular defect, supported by pressure transfer.

Platelets drive the body's primary hemostasis. SpeedM® concentrates them where they are needed – a physical effect.

Sources: [1] Pourshahrestani et al. 2016; [2] Kamble et al. 2012; [3] Udangawa et al. 2019.

High-tech development – easy to use.



Perforated hydrophilic nonwoven, precision-printed with halloysite dots

Tactility

29 development steps

Neither too soft nor too stiff: injured vessels stay palpable, while the material is firm enough for precise placement in deep wound areas.

Drainage

Waterjet perforation

Targeted perforations guide excess blood along the wound channel, prevent pooling at the wound base and increase contact with the mineral – for a stable clot during transport.

Halloysite dots

Patented lenticular dots

Lenticular mineral dots instead of a full-surface coating: flexible between the dots, pressure-transmitting at the dots, and permeable even when compressed.

Release behavior

Every batch tested

To monitor the safety and performance of the product, each production batch is tested by an independent institute for release behavior and efficacy in human citrate plasma.

When it matters most.

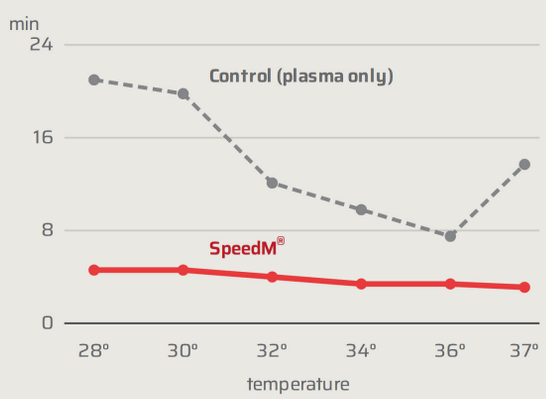
Two in vitro white papers (2026) examined SpeedM® under exactly the conditions that make bleeding control difficult in the field: low body temperature and blood thinners.

Hypothermia

In vitro model · human citrated plasma · 28–37 °C

≈ 3–5 min with SpeedM®

7.5–21 min control



Substantially shorter clotting time than the control at every temperature tested.

Anticoagulation

In vitro model · human citrated plasma · 37 °C

With all tested agents, clotting time with SpeedM® was consistently shorter.

Heparin (UFH)	Unfractionated heparin
Enoxaparin	Low-molecular-weight heparin
Rivaroxaban	Factor Xa inhibitor (DOAC)
Dabigatran	Thrombin inhibitor (DOAC)

The concentration–response curves shift to the right: higher anticoagulant concentrations are needed to reach the same clotting time – a functional safety margin in the plasma-based model.

IN VIVO
study 2026

Lethal porcine femoral artery model · anticoagulated (enoxaparin)

SpeedM® was benchmarked against kaolin-based gauze, the current standard, in a standardised arterial injury (4.6 mm arteriotomy) with trauma-induced coagulopathy. Both dressings achieved primary haemostasis. Re-application was needed in 1/10 animals with SpeedM® vs. 2/11 with the comparator; fatal rebleeding occurred in 1/10 vs. 3/11. Differences were not statistically significant (exploratory study, n = 21).

Hinck D et al. EJVES Vasc Forum 2026;66:2–8. doi:10.1016/j.ejvsvf.2026.04.002

In vitro studies in human citrated plasma; results cannot be transferred directly to clinical use. Hypothermia: recalcified citrated plasma, 28–37 °C, four replicates per lot; chart values read from Fig. 1 and rounded. Anticoagulation: platelet-poor citrated plasma at 37 °C. Vitamin K antagonists and P2Y12 inhibitors not tested. Validation in whole blood (e.g. ROTEM) and in vivo recommended. Sources: white papers SCM2026001 (01/2026) and SCM2026019 (03/2026), Institut für Diabetes Karlsburg GmbH.

Benefits of SpeedM®

Consistent bleeding control

- Effective in severe and hard-to-control bleeding
- High surface area for fast blood absorption and clot formation
- Shorter clotting time under anticoagulation and simulated hypothermia (in vitro)

Easy, confident handling

- Sterile and ready to use
- Fast, reliable opening with marked tear-off tabs
- High tactility; fingerlifting fold for fast wound packing
- Tearable – no tools needed
- 72-hour wear time for prolonged field care

Safety by material design

- Patented manufacturing process
- Mineral-based, no known allergy; no animal or human proteins
- No minerals remain in the body – every batch tested
- Non-exothermic; radiopaque X-ray detection strip

Compact. Durable. Ready when needed.

- No refrigeration, 5-year shelf life
- Climate-stable and humidity-resistant
- Sturdy, reinforced packaging
- Fits first aid and trauma kits, medic pouches, tactical backpacks



Photo: CPM Verlag / Sascha Schürmann

FIELD-TESTED. EXPERT-APPROVED.

In official feedback, army medics described SpeedM® as a **“highly effective and reliable hemostatic agent”** under tactical medical conditions.

They highlighted in particular:

- effectiveness when loosening tourniquets and during conversion
- effectiveness across various injury types, including severe bleeding
- rapid hemostatic action that helps stabilize the wounded
- simple, safe use under time pressure and in the field

Siversk Municipal Military Administration, Bakhmut district, Donetsk Region, Ukraine – Nov. 13, 2025

100%
Made in Germany
R&D, production, sterilization

Only
EU-based manufacturer of emergency hemostatic dressings

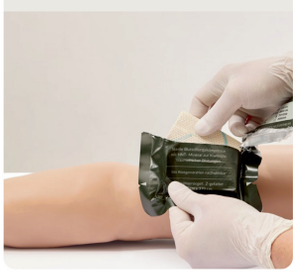
Patented
halloysite technology and imprinting process

How to use SpeedM®

For use by trained first responders

1

Identify injury, locate active bleedings. Remove the folded gauze from the packaging. Care for the heaviest bleeding first.



2

Insert one end of the gauze down to the deepest point of the wound. Then stuff and fill the wound cavity tightly from the bottom until the skin surface is reached.



3

Depending on the size of the wound, several dressings can be inserted into the wound cavity. As the dressing is perforated, it does not matter whether the printed or unprinted side comes into contact with the wound first.



4

Apply direct, firm pressure for at least 3 minutes or until bleeding stops. Apply pressure bandage. Seek medical attention immediately and show the package. Removing the product after a maximum of 72 hours.



Indication

- Temporary treatment of heavily bleeding wounds and traumatic injuries (cuts, lacerations, abrasions)
- For use by trained first responders

Contraindications

- Do not use on the eyeball
- Known allergy to clay minerals
- Children under 6 years of age

Warnings

- Non-absorbable – remove before closing the wound
- Not a substitute for surgical techniques and conventional hemostasis

VIDEO INSTRUCTIONS

Scan the code. Always follow the enclosed instructions for use.

Train as you fight.

Train realistically. Act with confidence. Be prepared when it counts.



The non-sterile **SpeedM® Trainer** has the same design and feel as the medical device and contains mineral in a comparable form. Police, military and emergency responders train with exactly the material they will have in an emergency.

Order information

Item	Product	Carton
CG01E	SpeedM®, English	180
CG01DE	SpeedM®, German	180
T01E	SpeedM® Trainer, English	180
T01DE	SpeedM® Trainer, German	180

Further language versions on request.



SpeedM®



SpeedM® Trainer

Product data

Size	7.5 × 370 cm, Z-folded
Single piece	10.5 × 14 × 2.2 cm, 25.5 g
Shelf life	5 years
Transport	–30 to +60 °C, no refrigeration
Storage	No special requirements
Packaging	15 / box · 180 / carton · 3,600 / pallet
Regulatory	MDR, CE 0482 (DNV Medcert)
GMDN / EMDN	47917 / M040599
Customs tariff	3005 9050

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Speed Care Mineral

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