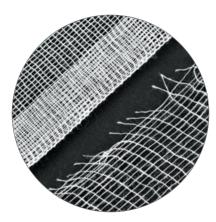


# KRUUSE Gauze and Nonwoven Products



■ Everybody uses it - nobody talks about it!

Get the "behind the scenes" scoop and learn the best uses for each of these essentials.



There is a clear difference between folded and unfolded edges. Loose lint are left behind in the wound and can cause infection/inflammation and prolong wound healing



Gauze balls in 4 regular sizes



Gauze range in different sizes and layers depending on usage/procedure



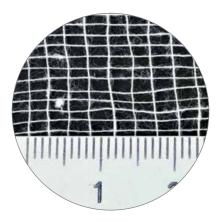
Raw cotton is removed from the seeds and leaves. It contains wax, proteins and minerals and needs to be processed in order to be absorbent



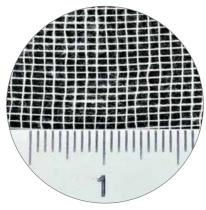
Gauze balls are made by turning edges of gauze inside forming a compact ball. KRUUSE balls are folded without the fixating silicone ring to avoid plastic waste



Cotton sample gently pulled apart for visual inspection of fiber length and impurities



8 thread gauze has less threads per square inch, meaning it is has less material and is less absorbent



There is more material in gauze with 17 threads per square inch, meaning it offers higher absorption



Very soft and conformable fixating bandage





### Gauze life from seed to clinic

Gauze is made from cotton. Each cotton flower can contain up to 16,000 fibers. Each fiber grows in 50 days developing a cell consisting of mainly cellulose. The length of each fiber is dependent on the right growing conditions and can be as long as 3.6 cm with only 25  $\mu m$  width and is barely visible to the human eye.

# Quality matters

Long fibers can wrap better around each other and make stronger, softer and better fabrics, whereas shorter fibers tend to fray more, creating a less firm fabric that may leave loose fibers in the environment and the wound.

### Cotton gauze emerges

After harvesting, the cotton flowers are brought to the factory, where the cotton is separated from the seed and the residue from the plant. Then, it is spun into a thread and woven into fabric creating the cotton gauze material.

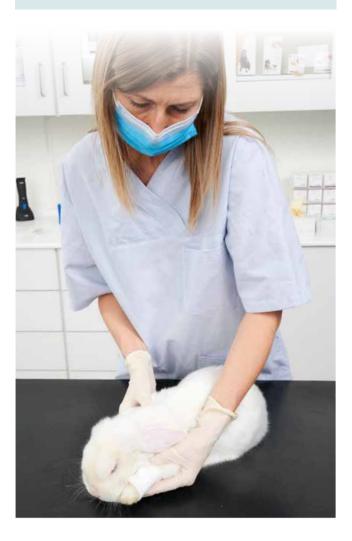


# Better absorption

After weaving, the material is treated through a scouring and bleaching process in order to be able to absorb liquid. Raw cotton contains natural wax, proteins and minerals, which will interfere with absorption in the finished product if not removed.

### Know the differences

- to get best-in-class quality
- Thread quality/thickness: The more material, the better absorption
- Longer fibers equal less lint and better quality
- Threads per sq/inch: Higher thread count means more material and better absorption
- Folded or unfolded swabs: Folded swabs avoid loose threads, which can prolong healing time
- Ply in swab: The more layers the more material and better absorption



#### What is nonwoven?

"Nonwoven" is an expression that covers fabric-like material made from fibers bonded together by chemical, mechanical, heat or solvent treatment.

Nonwoven fabrics are among the most versatile materials on the market today and are also used for materials in your home like reusable shopping bags, furniture and even clothes. In the medical world, nonwoven material is widely used in gowns, masks, operating covers and swabs.

#### Nonwoven products for medical use

The combination of materials in nonwoven products for medical use usually contains polyester and viscose in a blend. Polyester is originally derived from petroleum and is therefore a chemical water-resistant ingredient, which binds the material and ensures stability. Viscose is made from wood pulp, which contains cellulose and is by nature a very absorbent material.





# A dynamic, value-added alternative

Nonwoven fabrics are a dynamic, value-added alternative to more traditional materials. With nonwoven technology, fabrics can be designed to take on an array of characteristics that other materials simply cannot match:

- Better absorption per gram weight than competing fabrics 40 g/m² provides excellent absorbency
- Very soft for sensitive and damaged skin
- High level of uniformity
- Lint free, leaves no residue in the wound
- High tear and tensile strength
- Very economical choice

The nonwoven material in the KRUUSE Nonwoven Swabs is composed of 50% polyester and 50% viscose. In conjunction with the high weight quality of 40 g/m² it provides you a versatile product with higher absorbancy than regular 30 g/m² material.



KRUUSE Nonwoven Swabs in three sizes and traditional 4-layer



KRUUSE 40 g/m² material is soft when dry and wet and is appropriate for treating fragile and sore areas



This 30 g/m² close up illustrates the difference in material and thus absorbency capacity compared to 40 g/m²



What is the difference between gauze and nonwoven materials?
Cotton gauze is a natural material, whereas nonwoven products are fabric-like materials made from fibers.
See the tables below tables for comparisons of the two types of material and how you can best benefit from using them in your daily procedures.

# Material comparison

Description	Gauze	Nonwoven
Materials	100% cotton	50 % viscose 50 % polyester
Natural material	Yes	Partly
Bleached	Yes	No
Lint residue	Medium risk	No risk
Soft in dry condition	Soft	Very soft
Soft in wet condition	Not as soft	Soft
Can be sterilised	Yes	Yes
Form stability in use	Very stable	Stable
Air permeabillity	High	Medium
Absorption capacity	Medium	High
Absorption speed	Medium	High
Fluid retention	High	Medium
Value for money	Good	Very good
Environmental waste impact	Poor	Good



# Recommendation for use?

Description	Gauze	Nonwoven
Preparation before procedures/cleaning after surgery	<b>/ / /</b>	<b>V V V</b>
For absorption during operations/procedures	<b>///</b>	<b>///</b>
Hemostasis	<b>/ / /</b>	<b>√</b> ✓
Cleaning eyes/ears/tender/sore areas of the body	✓	<b>///</b>
Cleaning wound/changing dressing/peri wound	✓	<b>V V V</b>
Disinfection before IV/blood sample/injection	✓	<b>V V V</b>
After removal of IV/blood sample	<b>√</b> √	<b>V V V</b>
Drainage	<b>///</b>	<b>V V V</b>
Dental cleaning/procedures	<b>V V V</b>	<b>V V V</b>

✓ Low recommendation

✓✓ Medium recommendation

**✓ ✓ ✓** High recommendation

# **KRUUSE Gauze Swabs**

For sterile or non-sterile use, KRUUSE Gauze Swaps come in various sizes and layers with a high thread count and folded edges ensuring high absorption and less risk of infection.

# Faster healing

The folded edges in KRUUSE Gauze Swabs leave less debris and lint residue in the wound during procedures. Use the gauze swaps as-is and do not cut the edges, as doing so might leave lint residue and prolong the wound healing or cause infection/inflammation.

# High quality equals high absorption

KRUUSE Gauze Swabs contain 17 thread quality because a high thread count equals more material and hence a higher absorption capacity, which also means less gauze is needed per procedure.

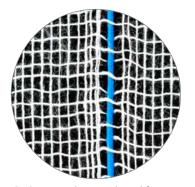


Cat. No	Description	Size cm	Ply	Thread	Package
160120	KRUUSE Gauze Swabs	5 x 5	8	17	100/pk
160121	KRUUSE Gauze Swabs	7.5 x 7.5	8	17	100/pk
160123	KRUUSE Gauze Swabs	10 x 10	8	17	100/pk
160184	KRUUSE Gauze Swabs	10 x 20	8	17	100/pk
160185	KRUUSE Gauze Swabs	5 x 5	12	17	100/pk
160186	KRUUSE Gauze Swabs	7.5 x 7.5	12	17	100/pk
160187	KRUUSE Gauze Swabs	10 x 10	12	17	100/pk
160188	KRUUSE Gauze Swabs	10 x 20	12	17	100/pk
160125	KRUUSE Gauze Swabs	10 x 10	16	17	100/pk
160335	KRUUSE Gauze Swabs, Sterile	5 x 5	12	17	5 x 20/pk
160336	KRUUSE Gauze Swabs, Sterile	7.5 x 7.5	12	17	5 x 20/pk
160337	KRUUSE Gauze Swabs, Sterile	10 x 10	12	17	5 x 20/pk
160338	KRUUSE Gauze Swabs, Sterile	10 x 20	12	17	5 x 20/pk



# KRUUSE Gauze Swabs with X-ray thread

The sterile X-ray swabs with folded edges contain a special blue barium sulfate thread, which is radio opaque. If, by accident a swab is missing after surgery, it is easy to detect the swab using X-ray without having to re-open the patient.



Radiopaque barium thread for easy recognition, if a swab is accidentally left in the operation site



Cat. No	Description	Size cm	Ply	Thread	Package
160340	KRUUSE Gauze Swabs , X-ray, Sterile	5 x 5	12	17	10 x 10/pk
160341	KRUUSE Gauze Swabs , X-ray, Sterile	7.5 x 7.5	12	17	10 x 10/pk
160342	KRUUSE Gauze Swabs , X-ray, Sterile	10 x 10	12	17	10 x 10/pk

# **KRUUSE** Gauze Balls

High quality 17 threads per square inch gauze balls are available in different sizes for various procedures. The soft and breathable, yet highly absorbable KRUUSE Gauze Balls are manufactured without a silicone ring, to reduce the environmental impact.

Creating your own gauze balls at the clinic is not cost effective or safe. It can potentially generate too much lint residue, leading to prolonged wound healing and infection.



KRUUSE cotton ball folded without a silicone ring - ready for use in numerous procedures



Gauze ball with silicone ring



Cat. No	Description	Ø cm	Size cm non folded	Thread	Package
160345	KRUUSE Gauze Balls	2	15 x 15	17	250/pk
160346	KRUUSE Gauze Balls	3	20 x 20	17	250/pk
160347	KRUUSE Gauze Balls	4	25 x 25	17	250/pk
160348	KRUUSE Gauze Balls	5	30 x 30	17	250/pk





# **KRUUSE Nonwoven Swabs**

Nonwoven swaps are versatile and can be used in almost any procedure.

Nonwoven swabs are made from a soft and comfortable material, making them very versatile for use in a multitude of procedures. Even in wet condition the swabs remain soft, which makes them suitable for purposes like washing a patient's sore ears or damaged skin.

The composition of the material and the high weight quality of 40 g/m $^2$  ensures a high absorbancy and softness.

Cat. No	Description	Size cm	Ply	Weight g/m²	Package
160300	KRUUSE Nonwoven Swabs	5 x 5	4	40	100/pk
160301	KRUUSE Nonwoven Swabs	7.5 x 7.5	4	40	100/pk
160302	KRUUSE Nonwoven Swabs	10 x 10	4	40	100/pk

# **KRUUSE Fixating Bandage**

Soft and conforming fixating bandages keep wound pads or padding in place. The breathable and skin-friendly fabric conforms to the body shape and provides extra patient comfort.

Cat. No	Description	Size cm x m	Package
160350	KRUUSE Fixating Bandage	6 x 4	10/pk
160351	KRUUSE Fixating Bandage	8 x 4	10/pk
160352	KRUUSE Fixating Bandage	10 x 4	10/pk
160353	KRUUSE Fixating Bandage	12 x 4	10/pk





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