Raw materials

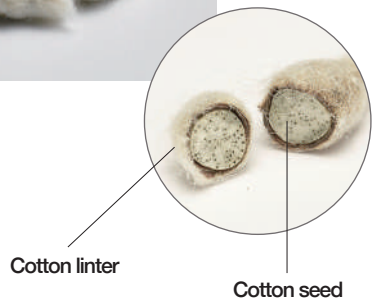
Sustainable

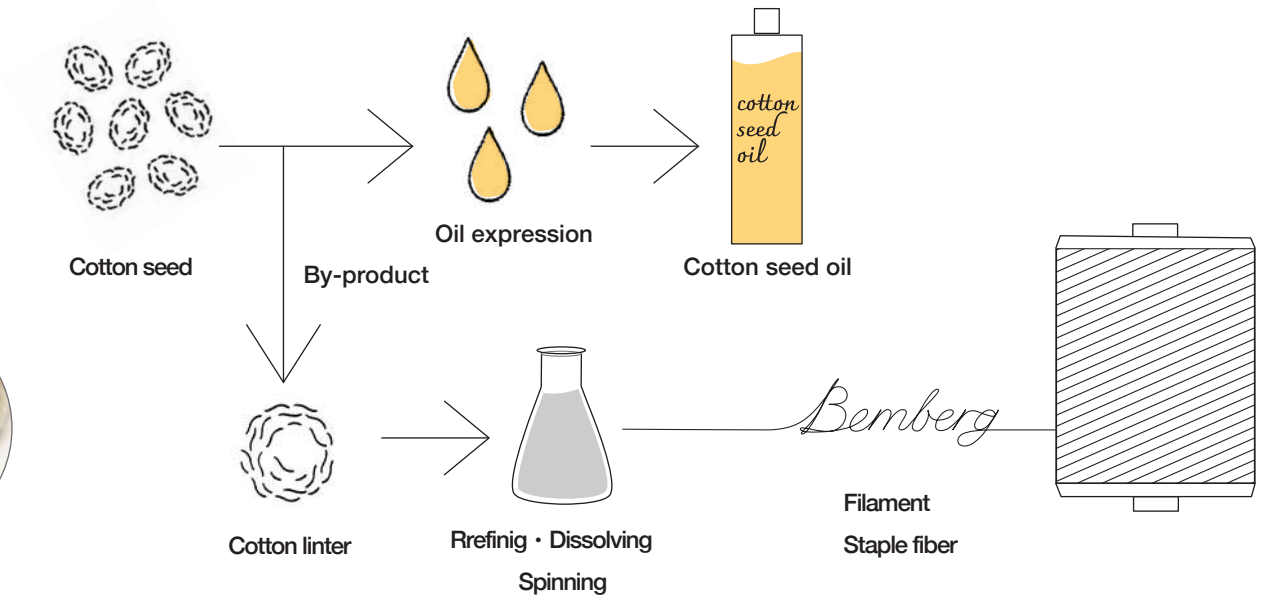
The raw material of Bemberg™ is cotton linter, the short downy fiber enfolding cotton seeds. Cotton linter is a by-product obtained from cotton seeds during the manufacturing process of cottonseed oil to enhance the efficiency of the use of cotton. Cotton is used efficiently to not waste any of the blessings of nature. This material is then refined and dissolved using a unique technique to produce pure regenerated fiber.

The Bemberg™ division has successfully acquired RCS 100 certification.
The Recycled Claim Standard (RCS) is a certification standard designed to track the presence and amount of recycled material through the supply chain, from supply source to finished good.

RCS100

License number：KN0020
Certification authority： KE' KEN





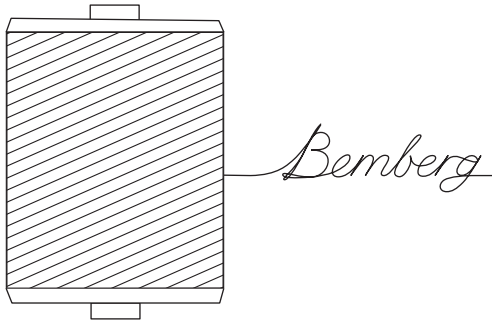
Bemberg™ by Asahi Kasei

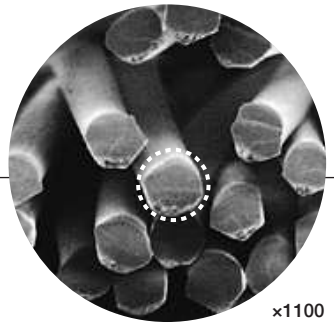
Bemberg™ is Asahi Kasei's brand of regenerated cellulose fiber, cupro.

Inside structure of fiber

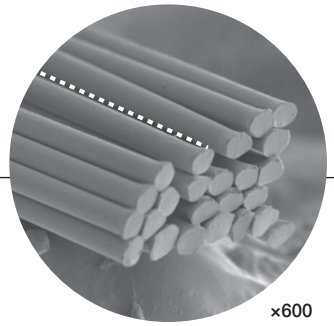
Made in Japan

Bemberg™ fiber features an almost perfectly round cross-section and a smooth surface. It is also randomly structured with the soft and hard parts. Thanks to its high moisture content of the soft part of fiber, Bemberg™ has superior features and properties.

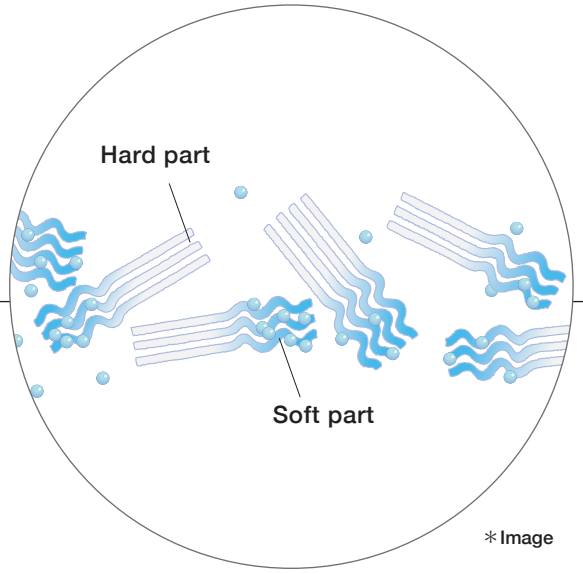




Fiber cross-section



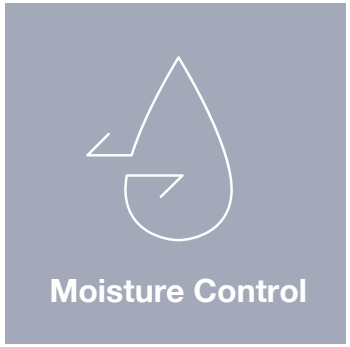
Fiber lateral view



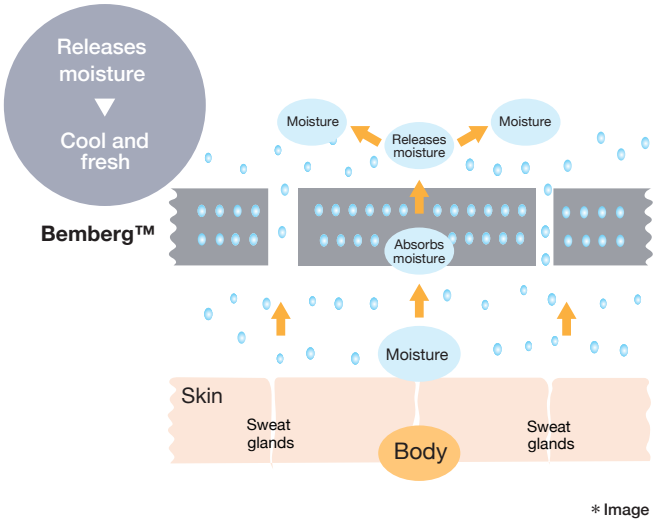
Inside structure of fiber

Bemberg™ by Asahi Kasei

Moisture Control



Bemberg™ quickly absorbs and releases moisture through very small waterways that are invisible to the naked eye. Bemberg™ releases excess moisture, ensuring you stay comfortable all year around.

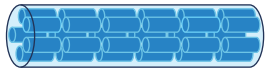


＊Image

Crystalline structure of a Bemberg™ fiber

※There is a difference in the density of the crystalline structure.

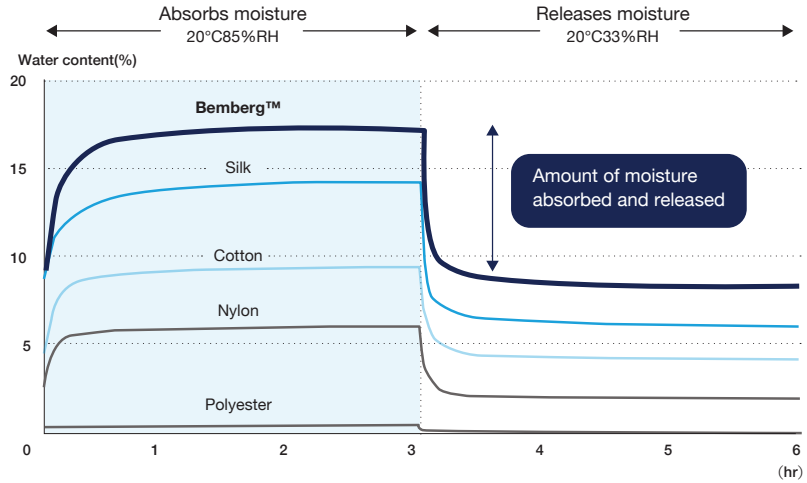
Crystalline structure of a cotton fiber



non-crystalline regions　crystalline regions

Having many non-crystalline regions which tend to absorb and release moisture, Bemberg™ releases excess moisture, keeping the wearer comfortable.

Moisture absorption and release according to changes in humidity



On an average day, the human body releases some 600cc, or four cups of water vapor via perspiration. Bemberg™ has excellent moisture absorbing and releasing properties, absorbing and releasing this perspiration.

Samples dried in advance and then humidified at 20°C x 33%RH
Measured according to JIS L 1954 by Boken

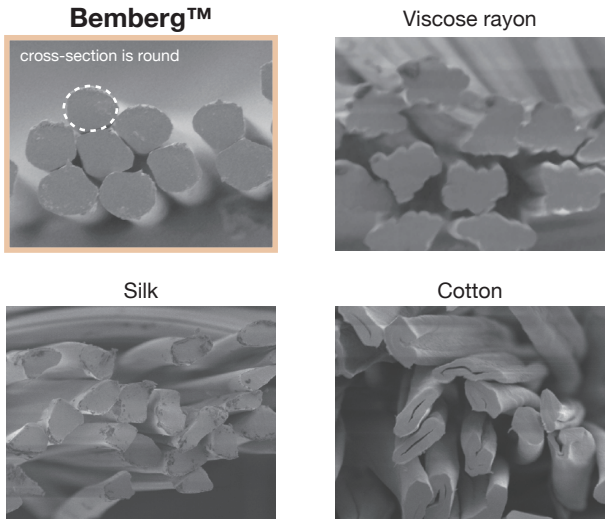
Bemberg™ by Asahi Kasei

Bemberg™ is Asahi Kasei's brand of regenerated cellulose fiber, cupro.

Gentle on the skin

Made of fibers with an almost perfectly round cross-section, Bemberg™ yarn has a smooth surface. This means it irritates the skin less than other materials and is unlikely to harm delicate skin. The fiber feels smooth to the touch and kind to the skin.

Fiber cross-section



Fiber cross-section (x1,100)

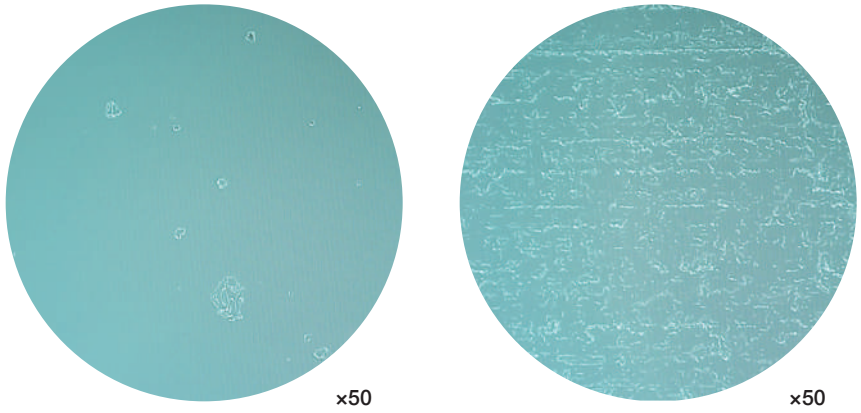


Image of replica skin samples rubbed on different fabric samples.
It is evident that Bemberg™ is less damaging to the skin.

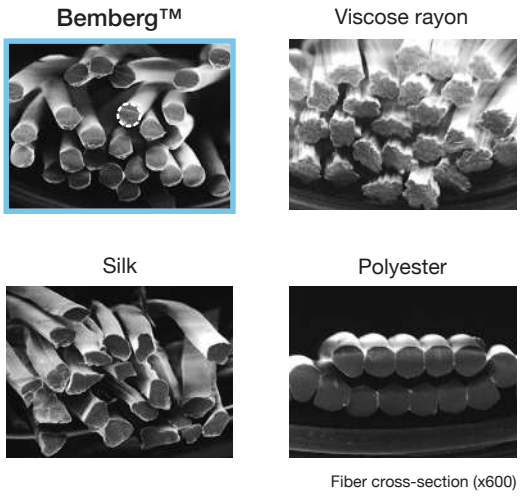
Measured at Asahi Kasei R&D Laboratory for Applied Products (Now known as Advanced Processing R&D Dept.)

Bemberg™ by Asahi Kasei

Slides on smoothly

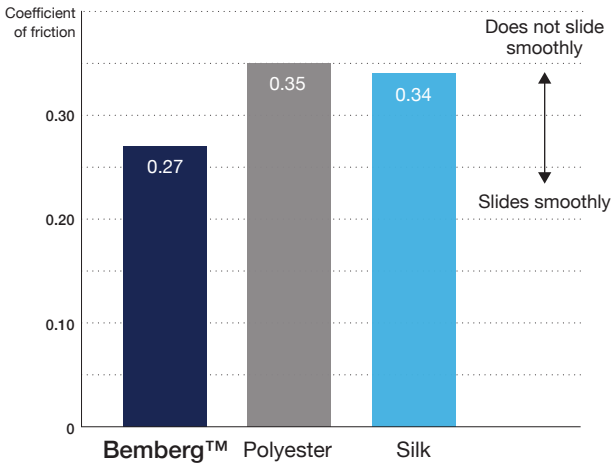
Bemberg™ fiber has an almost perfectly round cross-section and a smooth surface. It doesn't cause as much friction as other fabrics and it slides on easily, particularly when used to line sleeves.

Fiber cross-section

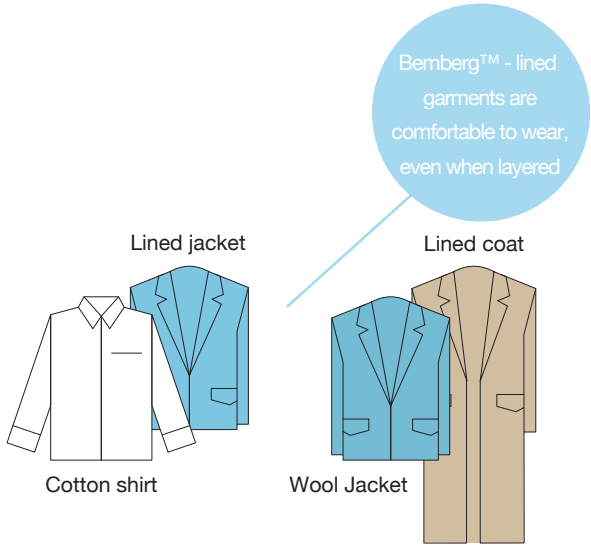


Fiber cross-section (x600)

Friction between different materials against cotton cloth



Measured using a KES-SE friction tester at the Asahi Kasei R&D Laboratory for Applied Products (Now known as Advanced Processing R&D Dept.)



Bemberg™ is Asahi Kasei's brand of regenerated cellulose fiber, cupro.

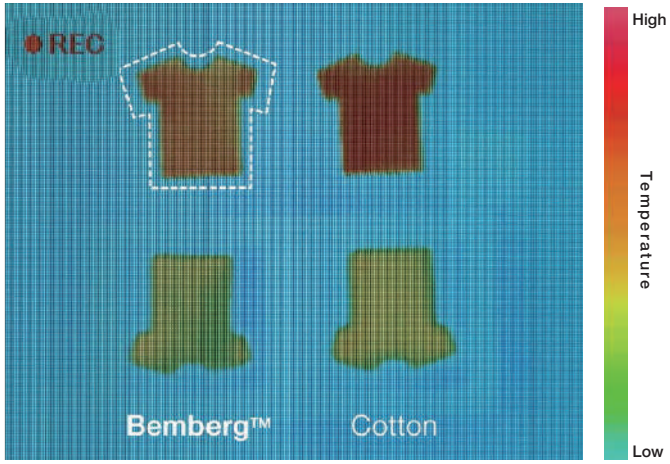
Bemberg™ by Asahi Kasei

Cool in summer

Cool Touch

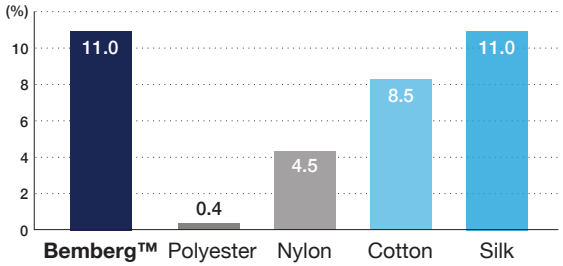
Bemberg™ fiber has superior thermal conductivity owing to its high moisture content, creating an optimal clothing microclimate at all times. The moisture helps the skin release heat quickly from its surface, keeping the wearer pleasantly cool in hot and humid summers.

The temperature on the skin surface



In this experiment, artificial skin was warmed to 37 °C and placed on different fabrics.
The surface temperatures were compared using thermography.
The temperature of the skin replica that touched Bemberg™ has lowered.

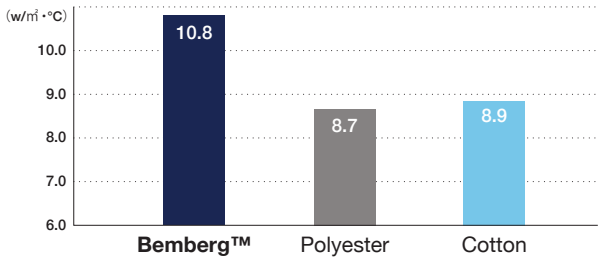
Standard moisture regain (%)



Bemberg™ fibers have a high water content.

Source : JAPAN CHEMICAL FIBERS ASSOCIATION "Fiber Handbook 2024"

Heat releasing properties (DHL*/skin surface)



Bemberg™ lets heat escape.

Comparison using single jersey fabrics
*DHL : Dry Heat Loss
Measured at Asahi Kasei R&D Laboratory for Applied Products
(Now known as Advanced Processing R&D Dept.)

Bemberg™ by Asahi Kasei

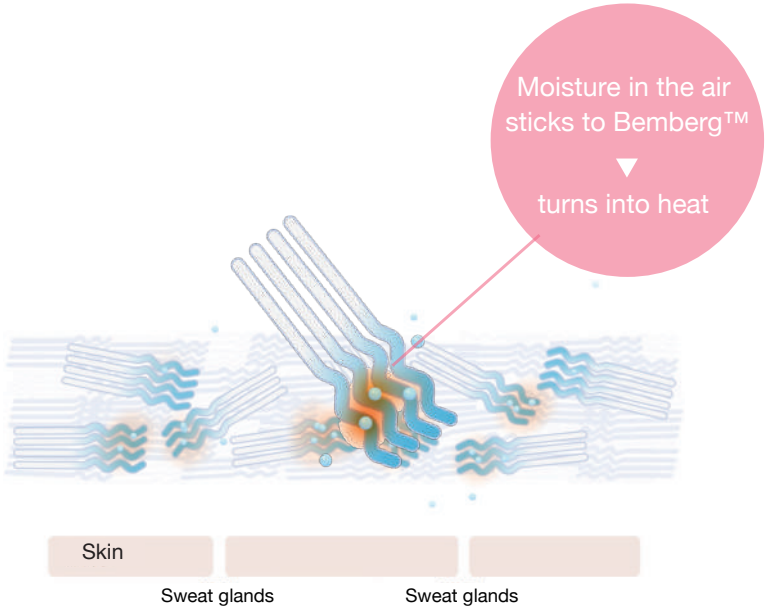
Bemberg™ is Asahi Kasei's brand of regenerated cellulose fiber, cupro.

B05C515-E Revised April 2025

Warm in winter

Moisture Absorbing Heat Generation

Bemberg™ absorbs moisture released from the body.
The energy of this moisture turns into heat, which generates warmth.
By combining Bemberg™ with a material that does not allow the heat to escape, it keeps you warm.



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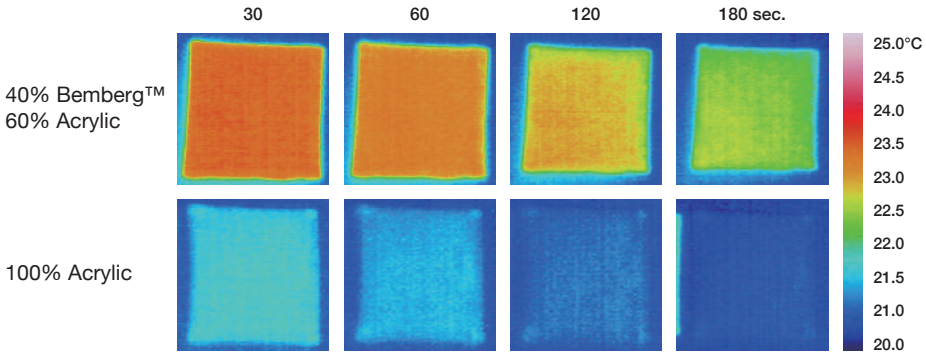
Moisture absorption and heat generation test

The inclusion of Bemberg™ makes it easier to generate warmth.



Thermal images showing the surface temperature of fabric relocated from 20"CX20%RH to 20"Cx90%RH

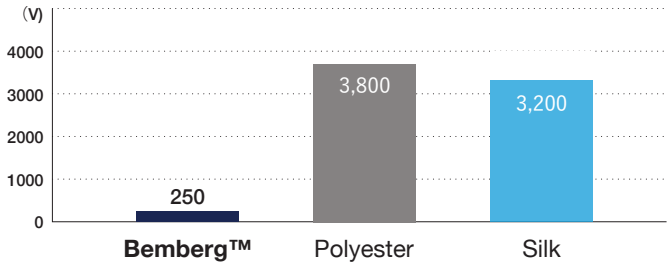
Measured at Asahi Kasei R&D Laboratory for Applied Products (Now known as Advanced Processing R&D Dept.)

Bemberg™ by Asahi Kasei

Anti-static

The anti-static properties of Bemberg™ are superior.
The static electricity generated by friction is discharged into the air via the moisture inside Bemberg™ fibers.
They also affect dust and pollen adhesion.

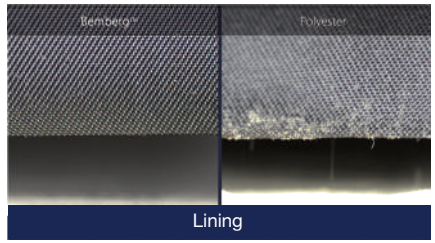
Friction-charged electrostatic potential after a rub test with wool fabric

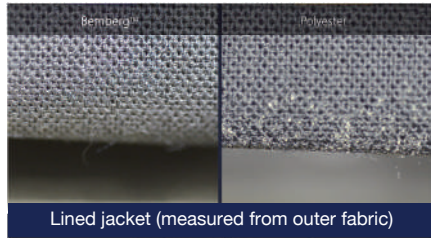


JIS L1094 method, under conditions 20°C×40%RH
Measured at Boken Quality Evaluation Institute.

Amount of foamed polystyrene that adheres to fabrics due to static electricity (After a rub test with wool)

Amount of pollen that adheres to Bemberg™-lined garments and polyester-lined garments

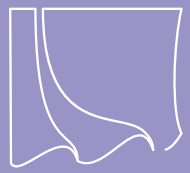




Bemberg™ by Asahi Kasei

Bemberg™ is Asahi Kasei's brand of regenerated cellulose fiber, cupro.

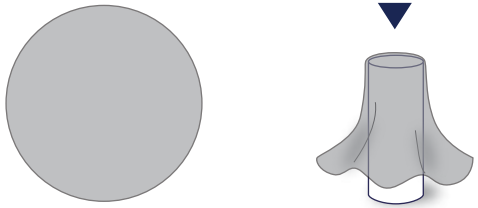
Beautiful silhouette



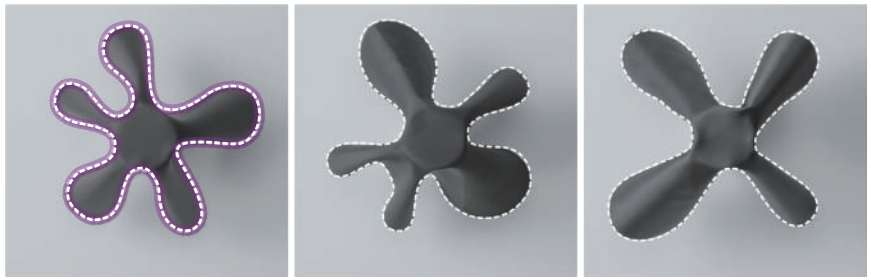
Drapability

Within Bemberg™ fibers, there are soft parts and hard parts that are randomly combined together. The soft parts contain a moderate amount of moisture that adds weight, allowing the fabric to drape beautifully.

Fabrics cut in a circle were placed on tubes to compare their draping properties.



Bemberg™ drapes beautifully in a well-proportioned way.



Bemberg™ Silk Polyester

Measured at Asahi Kasei R&D Laboratory for Applied Products (Now known as Advanced Processing R&D Dept.)

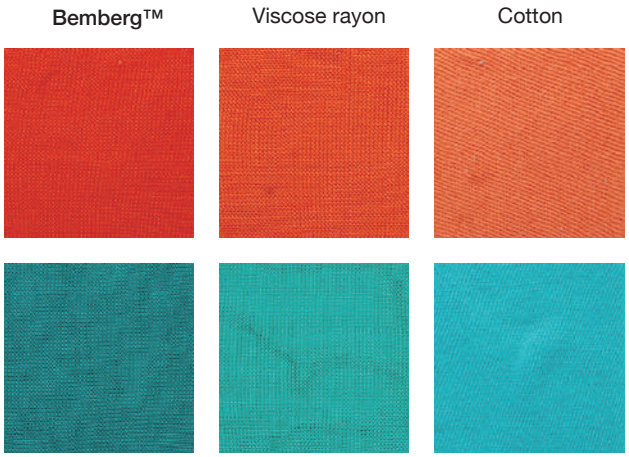
Bemberg™ by Asahi Kasei

Beauty with color depth

Rich Colors

Bemberg™ fibers have many extremely small waterways and non-crystalline regions, making them quick to absorb dye. Bemberg™ fabric can therefore be dyed a deep color in a short space of time. Bemberg™'s beautiful luster and rich dye colors add to the diverse appearance of the fabrics.

Dyeability comparison of different material



Dyeing under the same conditions

Dyeing solution after dyeing

Under the same conditions, Bemberg™ absorbs dye better than other fabrics, leaving the dyeing solution the most pale.

Measured at Asahi Kasei R&D Laboratory for Applied Products
(Now known as Advanced Processing R&D Dept.)

Bemberg™ by Asahi Kasei

Biodegradability - soil

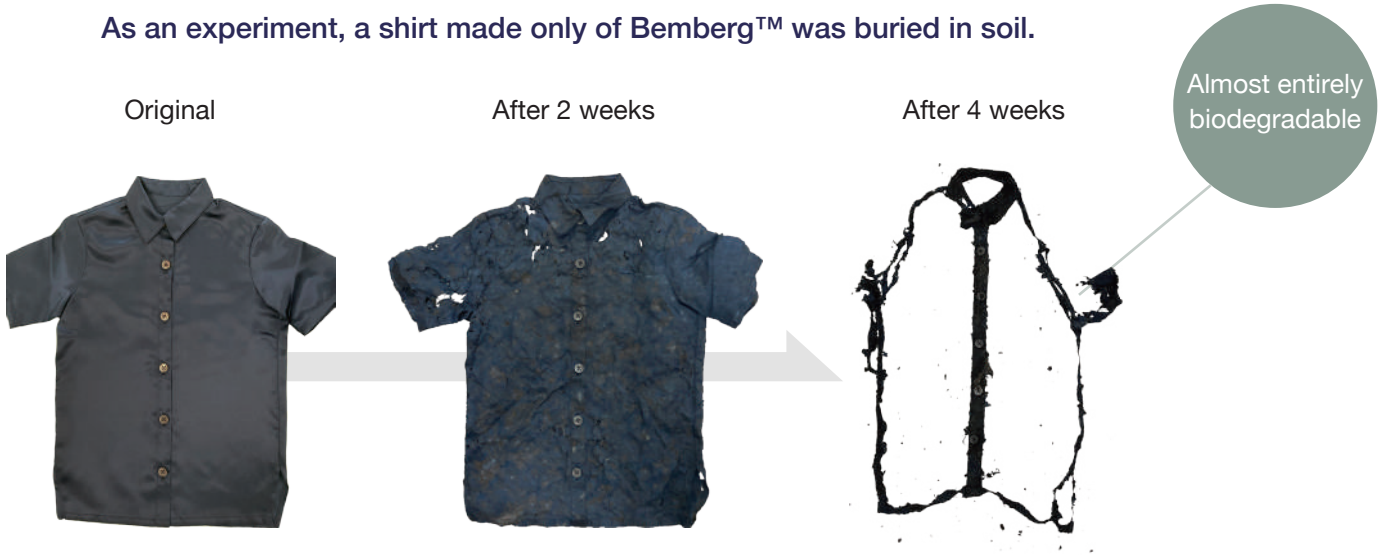
Soil Biodegradable

When placed under soil, Bemberg™ is biodegraded by microbes.

After biodegradation, Bemberg™ returns to the soil.

The biodegradability of Bemberg™ was verified in soil by a testing organisation.

As an experiment, a shirt made only of Bemberg™ was buried in soil.



- Summer conditions (temperature 35°C / 90% humidity)
- The rate of biodegration changes depending on the surrounding environment.

Bemberg™ by Asahi Kasei

Biodegradability - marine

Marine Biodegradable

Bemberg™ is marine biodegradable, which means that it has the rare ability to be biodegraded in marine environmental conditions through the action of microorganisms.
The marine biodegradability of Bemberg™ is certified.
It is biodegraded without affecting the growth of marine life.

As an experiment, a shirt made only of Bemberg™ was submerged in seawater.

Almost entirely biodegradable

1st week

3rd week

5th week

- The temperature of the sea was 30 °C and oxygen and nutrient salt were present when the measurements and images were taken.
- The sewing thread and interlining cloth are made of synthetic fibers.

Marine Biodegradability Certification

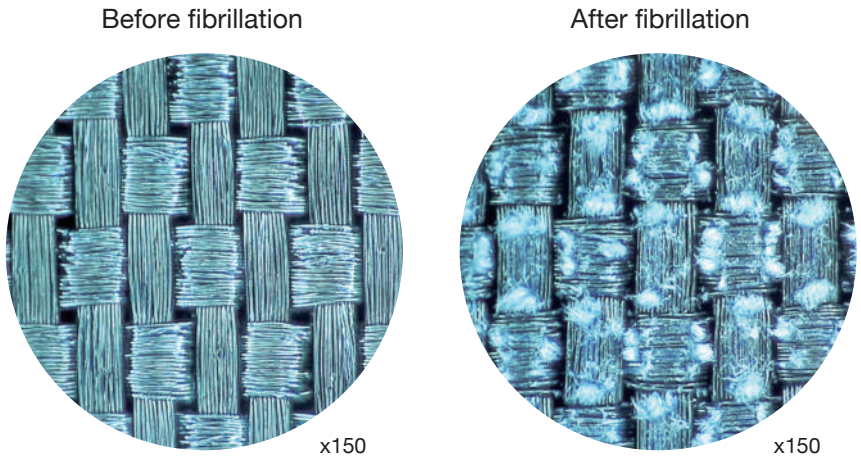
MARINE OK bio-degradable
TÜV AUSTRIA
MARINE S0982

The marine biodegradability of Bemberg™ is certified by TÜV AUSTRIA BELGIUM.

Bemberg™ by Asahi Kasei

Fibrillation

Bemberg™ is a material suited for a fibrillated finishing.
It creates a unique hand feel and texture of fine nap on the surface.
We developed and introduced a fibrillation technique called *Velutine™ Evo*
that is designed to reduce environmental impact.

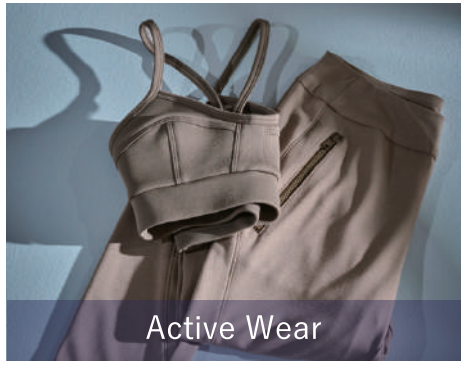


The fibrillated finishing creates a fine nap on the surface similar to rose petals.

Measured at Asahi Kasei R&D Laboratory for Applied Products (Now known as Advanced Processing R&D Dept.)

Bemberg™ by Asahi Kasei

Its shape and style can be changed at will, stimulating creativity. It can be used for linings, intimates, apparel textile, traditional wear such as saris, active wear and home textiles.



Bemberg™ by Asahi Kasei

History

Born in the late 19th century, Bemberg™ has contributed to achieve a sustainable society, utilizing technology and knowledge to stay close to changes in the fashion industry. Accentuating the true beauty of the wearer through innovation is our timeless passion that has woven a heritage of over nine decades, capturing the hearts of people around the world.

1931

The production of Bemberg™ commences

1940s

The production of raw yarns for tricot begins

1950s

Raw yarns of Bemberg™ for yarn-dyed linings begin to be input in full scale. The industry's first "chop (consignment processing production) system" is started.

1960s

Production of Bemberg™ staple fiber begins.
Expansion of the fields of apparel and materials (woven labels, metallic fibers, hair implantation, handicraft yarn, etc.)

1970s

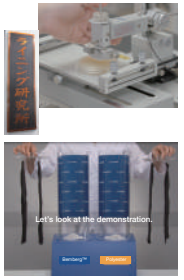
Production of Bemliese™ (nonwoven product) and hollow fibers (for artificial kidneys) begins.

1980s

Entrance to the apparel textile industry through development of fibril-processed material

1990s

Lining R&D Laboratory for Applied Product is established.
Production of hank yarns stops.

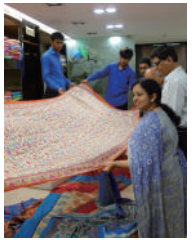


2000s

Expansion of functional textiles (intimates)
Production of cupro fiber ends at other companies, the result of which is that Asahi Kasei becomes the only cupro (Bemberg™) manufacturer.

2010s

Participation in the Business Call to Action (BCtA) initiatives in India



2021 90th anniversary of Bemberg™

It's the one-of-a-kind material that reflects the grace and elegance of those who wear it like no other can.
Crafted Elegance - Bemberg™

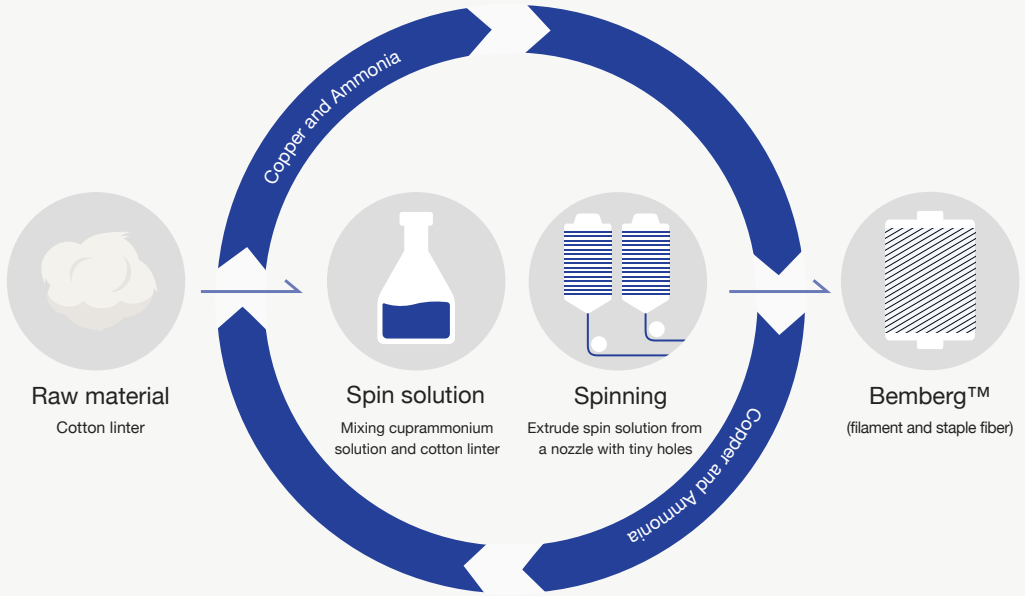
Image Source of 1940s, 1950s : BUNKA PUBLISHING BUREAU

Bemberg™ is Asahi Kasei's brand of regenerated cellulose fiber, cupro.

Bemberg™
by Asahi Kasei

Closed-loop system

Bemberg™ is a regenerated cellulose fiber made from cotton linter. Since our foundation, we strictly control the chemical substances used in the manufacturing process and have introduced a closed-loop production system that recovers and reuses copper and ammonia. We have been making improvements further even now.



Certification

The environmentally friendly Bemberg™ manufacturing process is recognized by multiple certification bodies.

OEKO TEX® STANDARD 100 N-KEN 01014 Nissenken

ISO-14001 JQA-EM0561

RCS100 KN0020 KE' KEN

Bemberg™ by Asahi Kasei

Biodegradability - soil / marine

Soil
Biodegradable

**When placed under soil, Bemberg™ is biodegraded by microbes.
After biodegradation, Bemberg™ returns to the soil.
The biodegradability of Bemberg™ was verified in soil
by a testing organisation.**

As an experiment, a shirt made only of Bemberg™ was buried in soil

Almost entirely biodegradable

original | 2 weeks later | 4 weeks later

- Summer conditions (temperature 35°C / 90% humidity)
- The rate of biodegration changes depending on the surrounding environment.

Marine
Biodegradable

Marine Biodegradability Certification

MARINE OK bio-degradable — TÜV AUSTRIA MARINE S0982

Certified by TÜV AUSTRIA BELGIUM.

**Bemberg™ is marine biodegradable, which means that it has
the rare ability to be biodegraded in marine environmental conditions
through the action of microorganisms.
The marine biodegradability of Bemberg™ is certified.
It is biodegraded without affecting the growth of marine life.**

As an experiment, a shirt made only of Bemberg™ was submerged in seawater

Almost entirely biodegradable

1st week | 3rd week | 5th week

- The temperature of the sea was 30 °C and oxygen and nutrient salt were present when the measurements and images were taken.
- The sewing thread and interlining cloth are made of synthetic fibers.

Bemberg™ is Asahi Kasei's brand of regenerated cellulose fiber, cupro.

Bemberg™ by Asahi Kasei