



smartcel™ sensitive – the secret of
natural protection and care in a fiber





A fiber that provides care and protection for the skin

The zinc oxides used in smartcel™ sensitive help to regenerate the skin, improve the healing of wounds and reduce inflammation. People with very sensitive skin, (babies and sufferers of conditions such as eczema or neurodermitis) will particularly benefit from its healing properties.

The zinc oxides used in smartcel™ sensitive also act as a shield against harmful UVA and UVB radiation. Depending on the percentage of smartcel™ sensitive used, it can provide the skin with up to 50 SPF.

Besides its beneficial effects on the skin, zinc oxide possesses antibacterial and odor-reducing properties.*

Those reactions are triggered when the skin gives off moisture, enabling an active exchange between the substances of the fiber and the skin. Since zinc is a component of skin-building enzymes, it operates directly on the skin.

A patented high-tech process that guarantees long-lasting quality

smartcel™ sensitive is produced using the Lyocell Process, an innovative and eco-friendly production method. Production takes place in a closed loop with no chemicals released as

waste. This meets the expectations of our industry both today and in the future. It is one reason why the European Union awarded the procedure with the 2000 European Environmental Award in the category “technology for sustainable development”.

The high tech fibers are produced exclusively for smartfiber AG on modern fiber production plants at Lenzing AG in Austria. A highly specialized team of engineers and scientists supervises the production process on site.

Thanks to the patented manufacturing process, the zinc in smartcel™ sensitive is preserved and permanently embedded into the fiber, even after multiple washing cycles.

Added value for a wide range of applications

If you are looking for an environmentally sound fiber that offers maximum comfort together with benefits for both mind and body, smartcel™ sensitive is the natural choice.

The fiber is suitable for a vast range of applications, from sport and fashion clothing, underwear and loungewear to home textiles, and combines easily with any other fiber.

It adds a smooth, silky feel to any fabric, together with the comfort and care elements required from a generation with an active, health-conscious lifestyle.

The power of zinc in a fiber

smartcel™ sensitive is an innovative fiber based on natural cellulose, which includes the essential trace element zinc.

Zinc has perhaps a greater impact on our wellbeing than any other trace element. It is vital for our immune system, sensory functions and metabolism as well as skin regeneration and protection.

Using only high-quality, pharmaceutical grade 4 zinc white, smartcel™ sensitive combines zinc's regenerative and skin protective effects with its hygienic and antibacterial elements.

The fiber is produced without the use of aggressive chemicals and is made solely from renewable raw materials, making it both eco-friendly and fully biodegradable.





Guaranteed effects of smartcel™ sensitive

Numerous tests by various renowned institutes have confirmed the quality and effectiveness of smartcel™ sensitive for its odour-reducing and antibacterial properties.

The well-known Hohenstein Institute has confirmed that a content of just 20% of smartcel™ sensitive in any textile material offers excellent protection against UVA and UVB rays.

Thanks to its ecological and sustainable manufacturing process, smartcel™ sensitive has been awarded OEKO-TEX standard 100 certification for baby products.



seit 1558



Technical data

smartcel™ sensitive 2.5 dtex 38 mm/6.7 dtex 60 mm

Cellulose man-made fiber, with incorporated pharmaceutically pure zinc oxide produced according to the Lyocell-process.

Fibre composition in conditioned state (% by weight):

Cellulose	≥ 67 %
Zinc oxide	16 %
Fiber finish	0.32 %
Moisture content	≤ 12 %
Appearance	white, deepdull

Average textile physical fiber data:

Titer	dtex	2.5	6.7
Cut length	mm	38	60
Tenacity dry	cN/tex	25	23
Elongation dry	%	11	11
Tenacity wet	cN/tex	20.3	17
Elongation wet	%	13.7	14
BISFA wet modulus	cN/tex/5%	6.4	4.8
Degree of whiteness	Tappi	88	72

Cellulose is wood pulp made out of beech tree/eucalyptus.

**For customers in European markets: Please note that zinc, despite its undisputed natural antibacterial properties and the fact that it has long confirmed its status as an essential component in recognized cosmetic products of all kinds, is not listed as a biocide. It must therefore not be used for antibacterial applications in Europe. By contrast, smartcel™ sensitive in the U.S. and Asian markets is based on specific characteristics of the zinc oxide successfully used and applied in medical and antibacterial products.*