

# Cell Solution® SKIN CARE - Vitamin E

PATENTED GERMAN FIBRE TECHNOLOGY 



## Botanic Fiber

Cell Solution® Skincare fibers are natural cellulosic manmade fibers. The main raw material is wood pulp from non-endangered trees, and the additive paraffin is refined plant oil.

## Temperature-regulating fibers (PCM - Phase Change Material)

Cell Solution® Skincare fibers are temperature-regulating through a phase changing material (PCM), that has been embedded in the fiber. The fibers absorb excessive heat, accumulate it and release it when needed. The fibers actively balance temperatures that are too hot and too cold and provide a personal comfort climate in this way.

## Moisture control

The structure of the cellulosic lyocell fiber results in an optimal body climate because of the fiber's excellent moisture absorption. Synthetic fibers do not absorb any moisture.

## Functionality

Textiles with Cell Solution® Skincare fibers are lyocell fibers with integrated natural oils and Vitamin E. Cell Solution® Skincare implies a continuous skin care by the large-scale transfer of Vitamin E from the textile to the human skin. Vitamin E is well capable of penetrating and being absorbed through the skin. For the first time not only face and hands, but the whole body surface is treated. By embedding a Vitamin E depot into the matrix structure of Cell Solution® Skincare, the release of Vitamin E turns into a lifelong effect.

- Detoxification of free radicals
- Anti-inflammatory
- Repair and regeneration of human skin
- Regulation of the human skin's moisture balance by a long lasting Vitamin E release
- Independent verification

## Vitamin E

Cell Solution® Skincare fiber Contains > 6 % tocopheryl (Vitamin E). Vitamin E is considered an antioxidant superstar. It is one of the most wellknown and researched antioxidants, both when taken orally and when used in skin care products.

## Additional features

Studies have shown that vitamin E reduces UV-induced erythema, edema, sunburn cell formation, and lipid peroxidation. For years, vitamins have been recognized as extremely valuable ingredients in all kinds of cosmetics. Cell Solution® Skincare is a textile with embedded Vitamin E.

Cell Solution® Skincare fibers can be easily processed in to textiles and have consistent dyeability when following the recommended processing/finishing method.

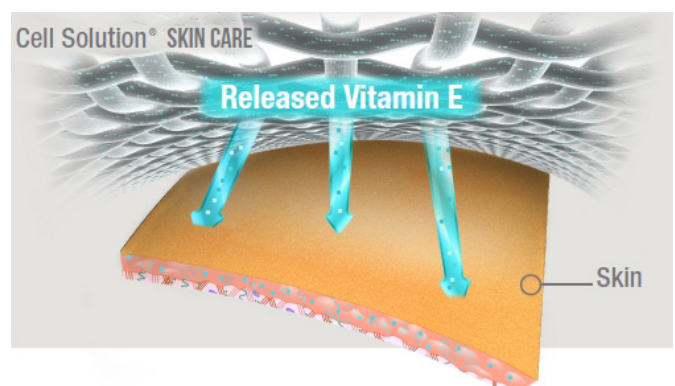
Hohenstein Institute: The transfer Vitamin E from the fiber to the skin is confirmed in test report no. 14.8.5.0091 dated 12 August 2014 by Hohenstein Laboratories GmbH & Co. KG.

Jena University Hospital, Clinic of Dermatology.

Oekotex certification.

## Range of application

- Sports- & fitness wear
- Underwear
- Nightwear
- Bedlinen
- Gloves
- Socks
- Medical articles
- Cosmetic pads



## Cell Solution® SKIN CARE - 2,3 dtex, 38 mm

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### Data sheet

Cellulose fibre with Vitamin E, embedded in paraffin, produced according the Lyocell - process

#### Fibre composition in conditioned state (given in % by weight):

|   |               |                        |
|---|---------------|------------------------|
| Cellulose:                                      |               | >61 %                  |
| Active substance Vitamin E (Tocopheryl Acetate) |               | > 6%                   |
| Stabilized paraffin                             |               | app. 16 %              |
| Organically modified mineral (layered silicate) |               | 8,5 - 9,4 %            |
| Finisher content                                |               | <0,5 %                 |
| Moisture  |               | <10 %                  |
| <b>Titre</b>                                    | <b>dtex</b>   | <b>2,3 ± 10%</b>       |
| <b>Tenacity, conditioned</b>                    | <b>cN/tex</b> | <b>&gt;20</b>          |
| <b>Tenacity, wet</b>                            | <b>cN/tex</b> | <b>&gt;17</b>          |
| <b>Elongation, conditioned</b>                  | <b>%</b>      | <b>12 - 15</b>         |
| <b>Elongation, wet</b>                          | <b>%</b>      | <b>14 - 15</b>         |
| <b>Loop tenacity</b>                            | <b>cN/tex</b> | <b>6 - 8</b>           |
| <b>Wet modulus</b>                              | <b>cN/tex</b> | <b>≥110</b>            |
| <b>Whiteness</b>                                |               | <b>17 - 30</b>         |
| <b>Staple length</b>                            | <b>mm</b>     | <b>38 mm ±10%</b>      |
| <b>Melting point (peak)</b>                     |               | <b>30°C/85°F</b>       |
| <b>Thermal decomposition</b>                    |               | <b>&gt;175°C/350°F</b> |
| <b>Ignition point</b>                           |               | <b>&gt;200°C/390°F</b> |

Due to the large amount of n-paraffin in the fiber, longer exposure of the product in dry state to temperatures above 100°C/210°F has to be avoided or will result in vaporizing of paraffin.

#### Storage capacity in accordance with DIN 51007 (DSC): > 37 Joule/gram.

The release of Vitamin E is detected even after 50 washing cycles at 40°C with a mild detergent. The transfer of alpha-Tocopherol (Vitamin E) from the fiber to the skin is confirmed in test report no. 14.8.5.0091 dated 12 August 2014 by Hohenstein Laboratories GmbH & Co. KG,.

