biologa® DANELL®

Building Biology Products
and services

Highfrequency

- for large-area shielding of high-frequency electromagnetic waves
- very good tear resistance with soft quality, antistatic, elastic
- 100 % textile properties
- elastic knitted fabric for a wide range of applications
- **Organic Cotton, kbA (controlled organic cultivation)**
- The New Antiwave quality is a right-left jacquard knit, in a combination of combed organic, certified organic cotton and silver coated polyamide

  The coating does not consist of controversial nano-silver, but of 20 % pure silver that surrounds the entire polyamide fibre. The metallic silver is absolutely harmless to human health and to nature.

  Pure silver has a natural antibacterial effect and can also have a positive effect on skin problems as well as excessive sweating and body odour.

  Thanks to the innovative fabric construction and the use of high-quality materials, this knitted fabric protects against electromagnetic radiation with an efficiency of > 99 %. This is confirmed by an expert opinion by the EMF test lab Bavaria.

  Particularly suitable for making linen, pillowcases, blankets, etc.

  New Antiwave is a particularly easy-care quality. A high-quality finish ensures that the shielding property is retained even after several washes. Due to the antibacterial effect of the silver, washing at 30 - 40 °C is sufficient.

## Shielding knitted fabric

# New Antiwave - Woman-Shorts

| Type | MHz | dB | in % |
|---|---|---|---|
| DVB-T2 | 470 - 690 | **26** | **> 99,0** |
| LTE / 5G wide | 700 - 750 | **26** | **> 99,0** |
| GSM, LTE | 920 - 960 | **26** | **> 99,0** |
| GSM, LTE | 1800 - 1880 | **23** | **> 99,0** |
| DECT | 1880 - 1900 | **23** | **> 99,0** |
| LTE, 5G wide | 2110 - 2170 | **21** | **> 99,0** |
| W-LAN 2400 | 2400 - 2500 | **20** | **~ 99,0** |
| 5G fast | 3400 - 3700 | **17** | **~ 98,0** |
| W-LAN 5200 | 5150 - 5350 | **13** | **~ 95,0** |

## Technical data

| | |
|---|---|
| available sizes: | S, M, L, XL<br>≈ 36/38, 40/42, 44/46, 48/50 |
| thickness: | ca. 0,5 mm ± 10 % |
| colour: | light grey / silver |
| basis weight: | ca. 145 g/m² |
| mesh size: | < 0,1 mm x 0,1 mm<br>opaque |
| composition: | 89 % Cotton (Organic)<br>9 % Polyamide<br>2 % Silver |
| properties: | very good tear resistance with soft quality, antistatic, elastic |
| wash cycles: | ~ 40 x |
| basis of examination: | IEEE Standard 299™-2006 |
| shielding effectiveness: | max. 26 dB (> 99 %) |

## Care instructions

particularly gentle washing (delicate or wool wash cycle at 30 or 40 °C)

gentle ironing on level 1 (iron at low temperature)

bleaching not allowed
No detergents with bleach

do not tumble dry

no dry cleaning

## Scope of application

public areas, home

can be used as outerwear or underwear

**Order-No.: 101064, 100971, 100972, 100973**
Short-Desc.: AW Woman-Short - S, M, L, XL

EN-101064-971-972-973-70-DATA.HTEX-V2.0.1-160123

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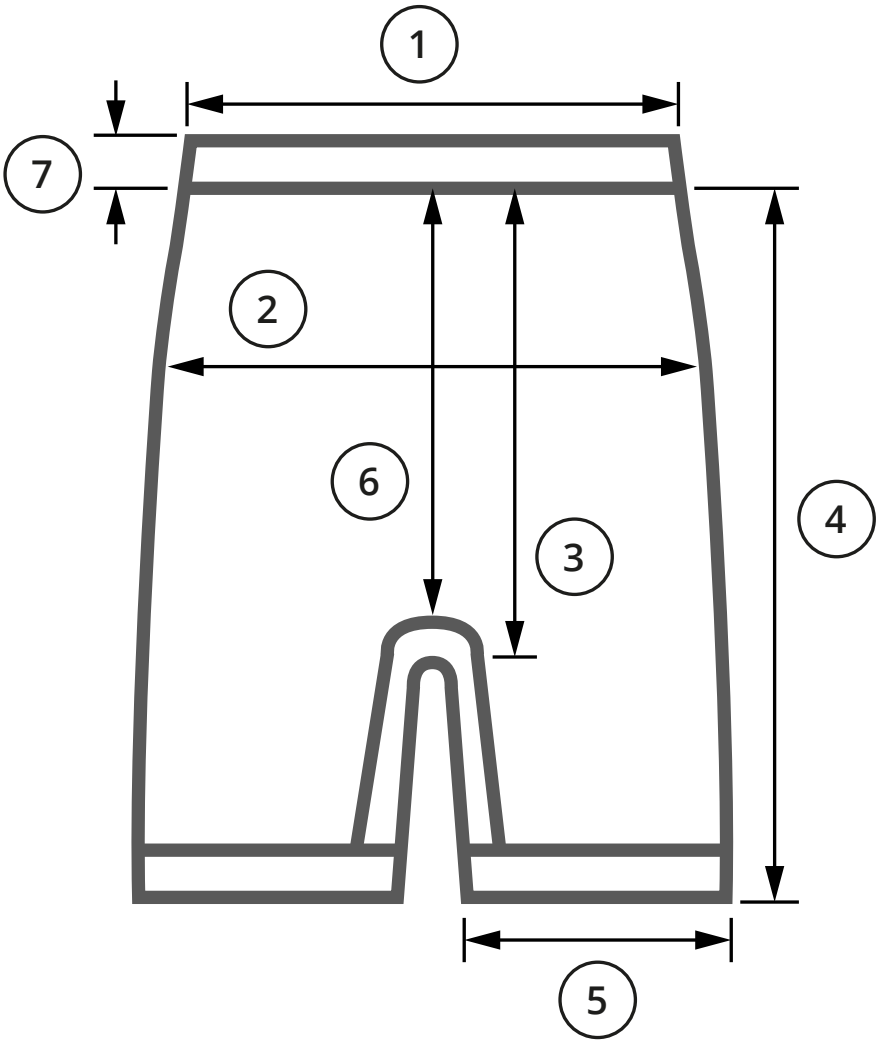
Further information at www.biologadanell.com

## New Antiwave - Size/Dimensions

### Woman-Shorts

| No. | Dimensions (in cm) | S 36/38 | M 40/42 | L 44/46 | XL 48/50 | Tol ± |
|---|---|---|---|---|---|---|
| 1. | Waist size | **30** | **31** | **33** | **36** | 3 % |
| 2. | Hip size | **39** | **41** | **43** | **47** | 3 % |
| 3. | Rise | **30** | **33** | **33** | **35** | 3 % |
| 4. | Length side | **34** | **34** | **36** | **38** | 3 % |
| 5. | Leg width | **23** | **24** | **25** | **27** | 3 % |
| 6. | Length front | **22** | **23** | **24** | **25** | 3 % |
| 7. | Waistband | **2,5** | **2,5** | **2,5** | **2,5** | 3 % |



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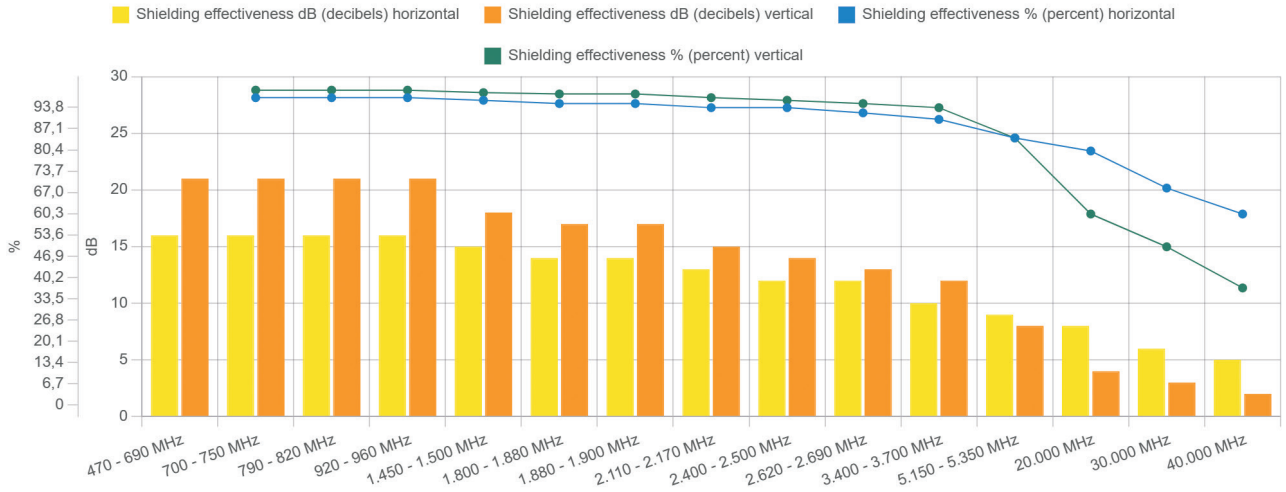
| Type | MHz | Description |
|---|---|---|
| DVB-T2 | 470 - 690 | digital video broadcasting – terrestrial, 2nd generation, TV via antenna |
| LTE / 5G wide | 700 - 750 | from 4G, now 5G NR without beamforming / MIMO |
| GSM, LTE | 920 - 960 | from 2G - D1, now 5G NR without beamforming / MIMO |
| GSM, LTE | 1800 - 1880 | from 2G - D2, E network, now 5G NR without beamforming / MIMO |
| DECT | 1880 - 1900 | wireless phone |
| LTE, 5G wide | 2110 - 2170 | from 3G, formerly UTMS, now 5G NR without beamforming / MIMO |
| W-LAN / WiFi 2400 | 2400 - 2500 | wireless LAN |
| 5G fast | 3400 - 3700 | 5G NR - new frequency band with beamforming / MIMO |
| W-LAN / WiFi 5200 | 5150 - 5350 | wireless LAN |

Shielding values according to test report: EMF Test Lab Bavaria

Shielding effectiveness - Antiwave OC white - unstretched - 470 MHz to 40.000 MHz (40 GHz)




1.000 MHz = 1 GHz -/- (according to test report EMF Test Lab Bavaria)

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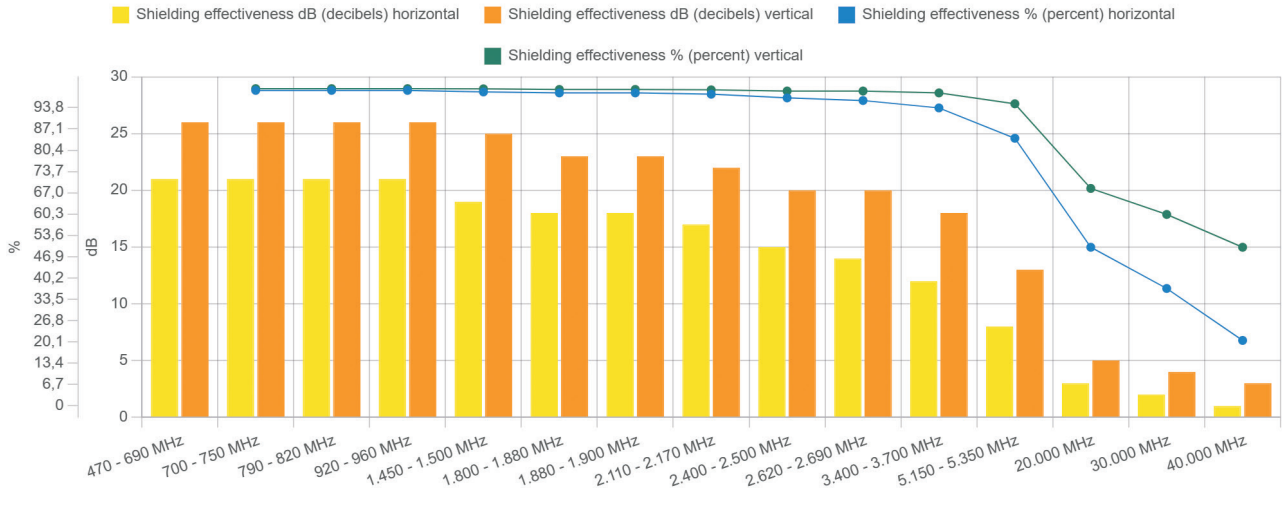


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