Building Biology Products
and services

Highfrequency

- for shielding 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 cotton and silver coated polyamide.

  The coating is not made of controversial nano-silver, but of pure silver that surrounds the entire polyamide fibre. The precious metal 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 in the range from 20 kHz to 10 GHz with an efficiency of > 97 %. This is confirmed by an expert opinion by the EMF test lab Bavaria.

  Also available by the metre and particularly suitable for making shielding clothes.

  New Antiwave is a high-quality, easy-care fabric with a high-quality finish that ensures that the shielding properties remain intact even after several washes. Due to the antibacterial effect of the silver, it is sufficient to wash the laundry at 30 - 40 °C.

Order-No.: 101080, 100977, 100978, 100979, 100980
Short-Desc.: AW Men-Short
M, L, XL, XXL, XXXL

Shielding knitted fabric

New Antiwave - Men-Shorts

Type	MHz	dB	in %
DVB-T2	470 - 690	**20**	**99,0**
LTE / 5G wide	700 - 750	**19**	**98,8**
GSM, LTE	920 - 960	**19**	**98,8**
GSM, LTE	1800 - 1880	**16**	**97,5**
DECT	1880 - 1900	**16**	**97,5**
LTE, 5G wide	2110 - 2170	**15**	**96,9**
W-LAN 2400	2400 - 2500	**15**	**96,9**
5G fast	3400 - 3700	**15**	**96,9**
W-LAN 5200	5150 - 5350	**14**	**96,0**

Technical data

available sizes:	M, L, XL, XXL, XXXL ≈ 5, 6, 7, 8, 9
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 opaque
composition:	89 % Cotton (Organic) 9 % Polyamide 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. ~ 20 dB (~ 99 %) direction-independent

Care instructions

40	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

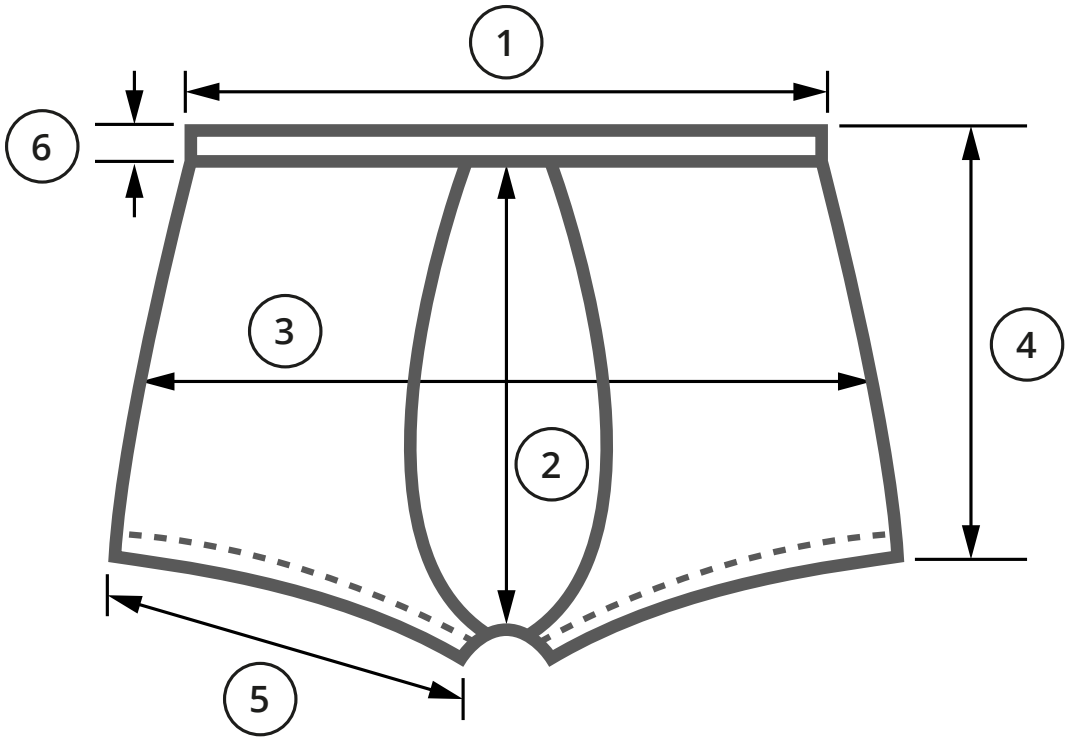
can be used as outerwear or underwear

Biologa Danell GmbH • Hauptstraße 27 • 72336 Balingen • GERMANY • +49 7433 955 7172 • info@biologadanell.com • www.biologadanell.com

New Antiwave - Size/Dimensions

Men-Shorts

No.	Dimensions (in cm)	48/50 Size: 5	52/54 Size: 6	56/58 Size: 7	60/62 Size: 8	64/66 Size: 9	Tol ±
1.	Waist size	**32**	**33**	**36**	**37**	**38**	3 %
2.	Length front and back	**29**	**30**	**31**	**33**	**34**	3 %
3.	Rise	**44**	**46**	**48**	**50**	**52**	3 %
4.	Length side	**27**	**28**	**29**	**31**	**32**	3 %
5.	Leg width	**24**	**25**	**25**	**25**	**26**	3 %
6.	Waistband	**2,5**	**2,5**	**2,5**	**2,5**	**2,5**	3 %

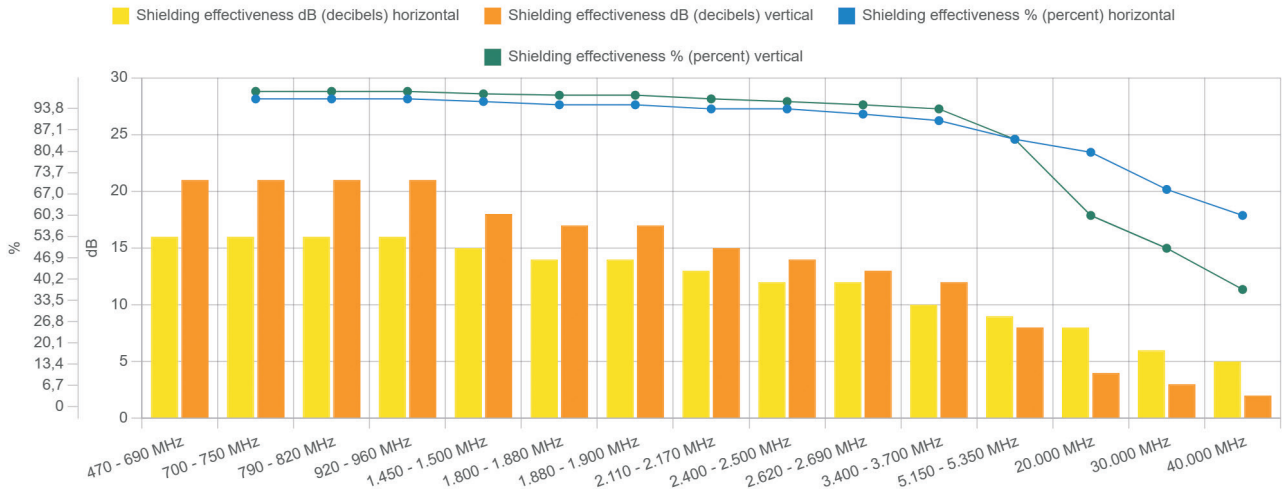


Biologa Danell GmbH • Hauptstraße 27 • 72336 Balingen • GERMANY • +49 7433 955 7172 • info@biologadanell.com • www.biologadanell.com

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

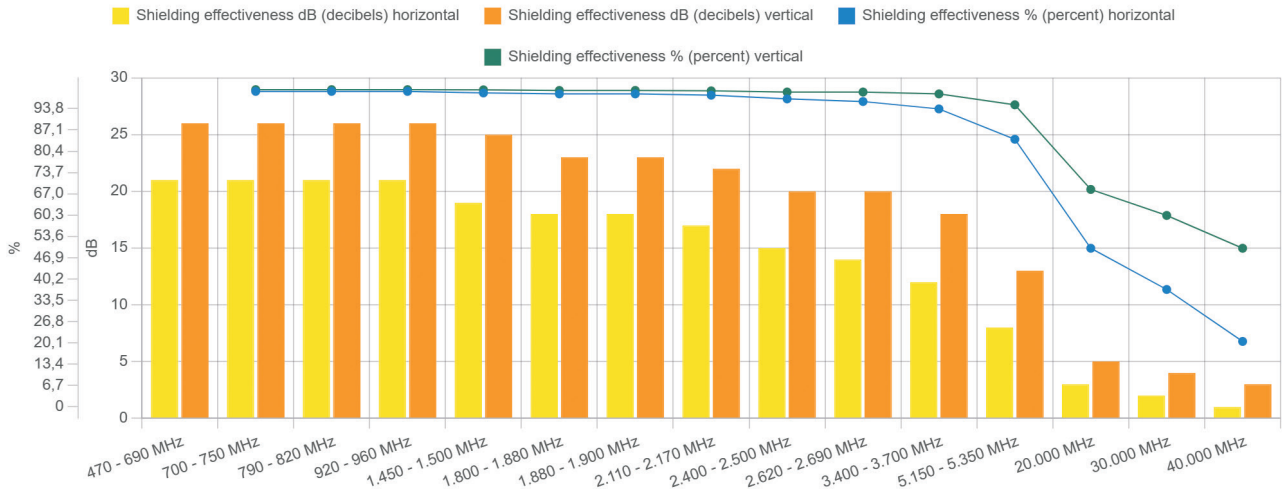
Shielding values: According to test report: EMF Test Lab Bavaria

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)

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



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

Biologa Danell GmbH • Hauptstraße 27 • 72336 Balingen • GERMANY • +49 7433 955 7172 • info@biologadanell.com • www.biologadanell.com