biologa®

Building Biology Products and Services

High Frequency

- 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 various applications
- The quality of New Antiwave is a right-left jacquard knit in a combination of combed cotton and silver-coated polyamide.

The coating does not consist of controversial nanosilver, but of 20% pure silver, which surrounds the entire polyamide fiber. The metallic silver is absolutely harmless to human health and nature.

Pure silver has a natural antibacterial effect and can also have a positive effect on skin problems, excessive sweating and body odor.

Due to the innovative design of the Stoff construction and the use of high-quality materials, this knitted fabric protects against electromagnetic radiation in the range from 20kHz to 18GHz with an efficiency of >99.9%. This is confirmed by an expert opinion from Prof. Pauli of the University of the German Armed Forces in Munich.

Especially suitable for the production of laundry, pillowcases, blankets, etc.

New Antiwave is a particularly pfl quality.

A high-quality finish ensures that the shielding properties are retained even after several washes. Due to the antibacterial effect of the silver, it is sufficient to wash the laundry at 30°C - 40°C.

Order-No.: 101024
Short name: New Antiwave

Shielding knit

New Antiwave

Art	MHz	dB	in %
TETRA	450	33	>99.9
GSM	900	31	>99.9
GSM	1800	23	>99.0
DECT	1800	23	>99.0
UMTS	2000	22	>99.0
W-LAN	2400	21	>99.0
W-LAN 2	5800	15	>90.0

Technical data

	Yard goods
Width:	180cm ±2% Useful width 175cm
Thickness:	ca. 0,5mm ±10%
Color:	light grey / silver
Basis weight:	approx. 145g/m²
Mesh size:	< 0.1mm x 0.1mm opaque
Components:	COT/PA/AG 89/9/2%
Properties:	very good tear resistance with soft quality, antistatic, elastic
Washing cycles:	~ 40x
Basis for examination:	IEEE-Standard 299-2006
Screening attenuation:	max. ~33dB (>99.9%)

Care instructions

	Especially gentle washing (fine or wool washing cycle at 30°C or 40°C)
	Gentle ironing on level 1 (low temperature ironing)
	Bleaching not allowed No detergent with bleach.
	Do not dry in a dryer
	No dry cleaning

Field of application

Clothing (long sleeve T-shirts, scarves, etc.)

Blanket covers

Pillowcases, flat pillows for e.g. under notebooks and tablets

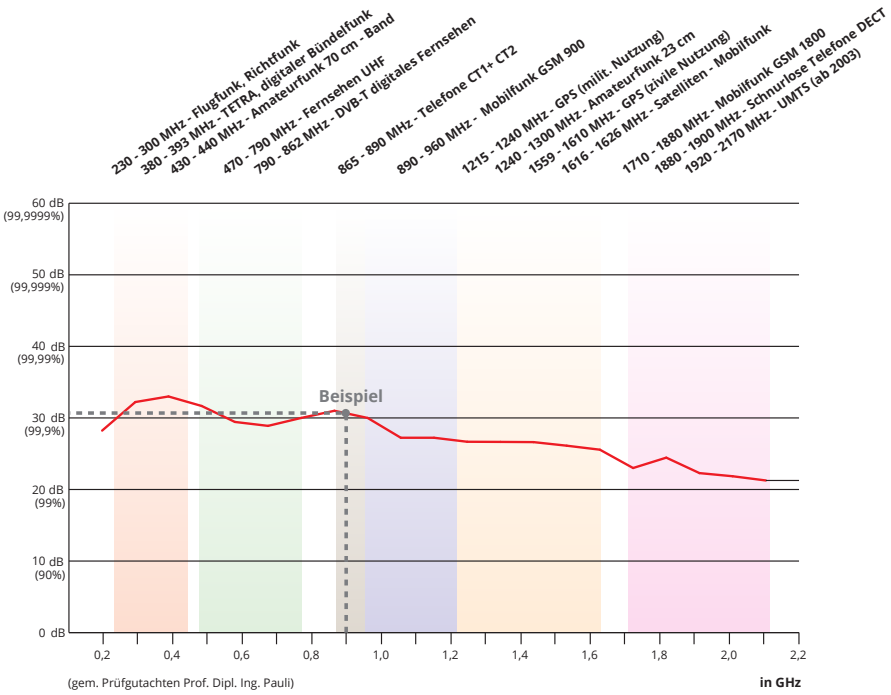
***Biologa Danell GmbH • Hauptstraße 27 • D- 72336 Balingen • Tel +49 7433 955 7172 • Fax +49 7433 955 6803 • E-Mail info@biologa.de • Web www.biologa-gmbh.com

Detailed screening attenuation curve 200 MHz - 2200 MHz

From bottom to top (Y-axis) the shielding effectiveness in dB (decibel) and the corresponding percentages.
From left to right (X-axis) the frequencies of the respective technical applications.
The values correspond to the load reduction in the respective frequency bands.

Example:

Reduction of exposure at 900MHz (GSM 900 - 0.9GHz) by ~31dB (>99.9%)

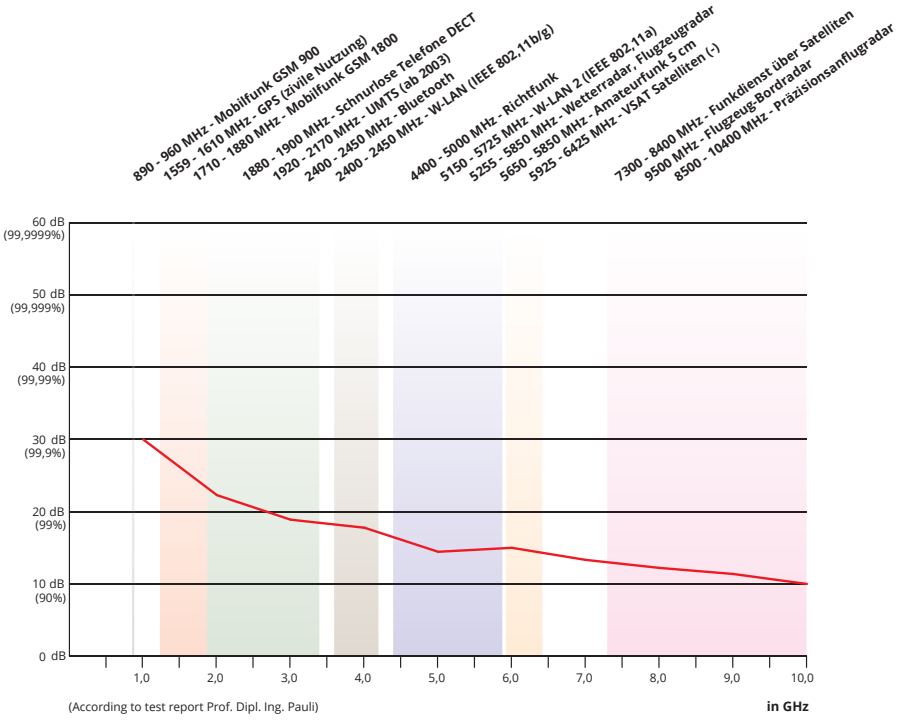


Detailed screening attenuation curve 1.0GHz - 10.0GHz

All Biologa products are tested from 200MHz to 10GHz.

According to the test report:
Prof. Dipl.-Ing. P. Pauli University of the Federal Armed Forces Munich HF-, Microwave and Radar Technology

Stretched knitted fabric
New Antiwave shows a rather better shielding effect when stretched (1-2dB = 20% - 30%)



***The knitted fabric cannot be contacted by the insulated fine silver threads and thus cannot be grounded (no grounding, no shielding of the low-frequency alternating electric field). Alternating low-frequency fields may have to be reduced by additional protective measures such as field disconnectors or fl ächige shielding with low-frequency shielding paint (NF45) or shielding fleece (Rubens Light). New Antiwave can be processed with conventional sewing equipment (sewing machine, simple yarns, etc.). A lap seam or similar overlapping seams are recommended.

***Biologa Danell GmbH • Hauptstraße 27 • D- 72336 Balingen • Tel +49 7433 955 7172 • Fax +49 7433 955 6803 • E-Mail info@biologa.de • Web www.biologa-gmbh.com

101024-DATA.HTEX-V1.1.0-020620