

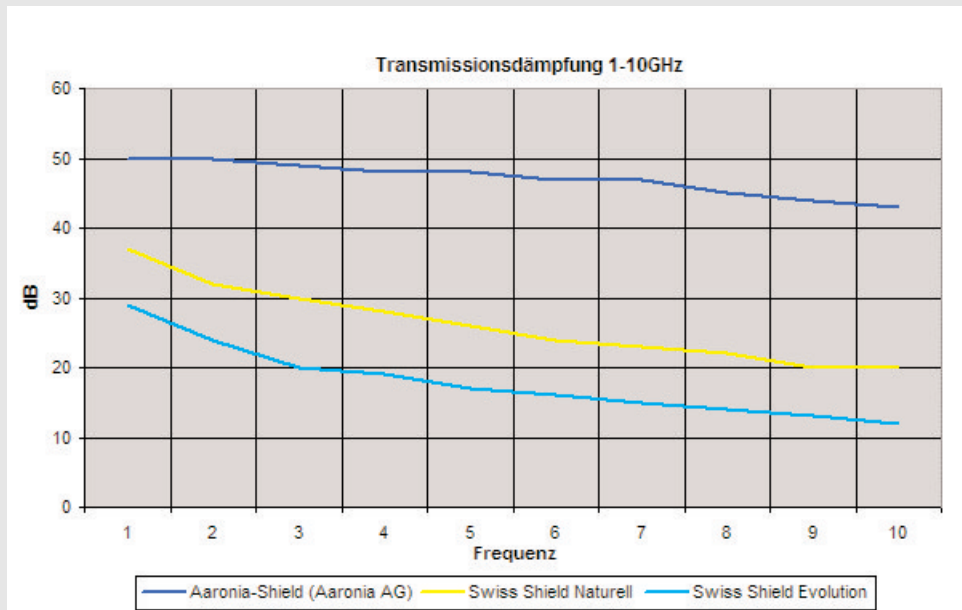


Z.B. im Einsatz beim MAX PLANK INSTITUT FÜR PLASMAPHYSIK, Greifswald

## **Technical Data:**

- **Breathable**
- **Highly transparent**
- **Can be processed like cloth. Ideal for clothing, curtains and drapes, canopies, protective clothing, etc.**
- **Does not rot**
- **Frost resistant**
- **Antistatic**
- **Antiseptic**
- **Washable**
- **Foldable**
- **Bendable**
- **Can also be used as transparent fly screen**
- **Simple handling, also for laymen**
- **Length per standard delivery unit: 0,7m, 7m (1m<sup>2</sup>, 10m<sup>2</sup>). Also as cut goods.**
- **Web width: 1,4m**
- **Thickness: 0,1mm**
- **Mesh aperture: approx. 0,7mm**
- **Color: silver/oxidized silver**
- **Weight: approx. 40g/m<sup>2</sup>**
- **Meshwork material: silver/polyamide mix**
- **Shielding characteristic static fields: 99,99% to 99,999% (only WITH grounding!)**
- **Shielding characteristic low-frequency, electric fields: 99,99% to 99,999% (only WITH grounding!)**
- **Shielding characteristic high-frequency fields up to 10GHz: 43dB (99,992%) to 50dB (99,999%) (also WITHOUT grounding!)**

## Transmission Attenuation Curve 1-10GHz:



Independent readings based on MIL-STD-285 by Prof. Dipl.-Ing. P. Pauli have confirmed the superior shielding effectivity of Aaronia-Shield® to the listed products that are also used for shielding canopies of curtains. The reduction/attenuation of high-frequency radiation in the frequency range that is especially subject to pulsed signals such as cellular phone stations, averages a sensational 43dB (99,992%) to 50dB (99,999%). In comparison to the listed screens Aaronia-Shield® offers a better shielding by at least the factor 30 and even up to a factor 1.000!

Also, Aaronia-Shield® is the only shielding of those mentioned that can also be grounded and can thus reduce accordingly static AND low-frequency electric fields that are radiated by all cables and appliances, or high-voltage lines, in your home. .

## Material properties:



Aaronia-Shield® is antiseptic



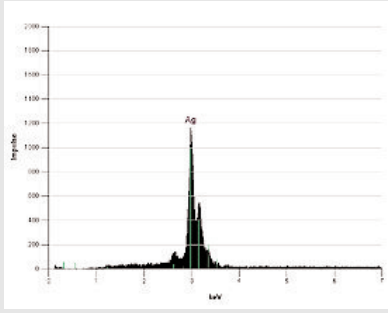
Aaronia-Shield® offers highest transparency and air permeability

The different available highly-transparent shielding systems currently on the market differ significantly with respect to protection effects and cost effectiveness and, especially at higher GHz levels, offer little protection.

Often, these systems are extremely expensive and do not protect you against low-frequency (LF) radiation.

The user thus needs TWO different shielding systems - one against high-frequency radiation and one against low-frequency radiation.

## Material properties:



The electron microscope scan shows the excellent material purity of Aaronia-Shield®



The elaborate high-tech weaving technique of Aaronia-Shield® offers the best shielding values possible, especially in high GHz ranges.



High-resolution electron microscope scans show the excellent surface integrity of Aaronia-Shield®



High-resolution electron microscope scans show the excellent surface integrity of Aaronia-Shield®

Aaronia offers one single, inexpensive and easy to handle transparent shielding system - the fabric Aaronia-Shield®.

**Compared with others, Aaronia-Shield® offers a very good shielding effectiveness especially in high GHz areas.**

Aaronia-Shield® offers protection both against high-frequency AND low-frequency radiation but at the same time is highly transparent and translucent.

Responsible for the very good screening properties is a complex canvas concept which is based on a patented silver/polyamide special fiber. Aaronia-Shield® can be handled just as regular cloth. It will not suffer when folded, is antiseptic, frost resistant, does not rot and is breathable.

It is perfect for high-performance shieldings such as canopies, clothing, drapes, curtains, fly screens, protective clothing or applications in aviation and space travel.

Please note that Aaronia-Shield® does NOT require grounding for high-frequency shielding. However, we do suggest for steady state usage such as canopies, drapes, fly screens, etc. that you use grounding with our “grounding package”, because with it you will achieve screening against low-frequency electrosmog from power supply lines, high-voltage lines, etc.

## Shielding solutions made of Aaronia-Shield® :



Shielding canopy made of Aaronia-Shield® and  
Shielding mats made of Aaronia X-Dream®

Aaronia-Shield® can conveniently be used as shielding transparent fly screen in your windows. It can also be used as high-quality shielding curtain or drapes. Aaronia offers you premium canopy systems made of Aaronia-Shield® for your beds.

And, in order to shield your floor, we have developed special mats made of Aaronia X-Dream®. These mats also shield the canopy systems and thus offer comprehensive protection against radiation.

Our canopy systems are easy to handle and can be installed by laymen and guarantee you an ideal sleeping area.

## Attenuation Table:

Attenuation Table Aaronia High-performance Shielding solutions:

Shielding solution:	Frequency:	Attenuation in dB:	Attenuation factor:	Attenuation in %:	Examples:
A2000+	1GHz	20dB	100-fold	99,0%	Interior and exterior shielding for low radiation levels
	10GHz	10dB	10-fold	90%	
Aaronia-Shield®	1GHz	50dB	100.00-fold	99,999%	Textile applications (canopies, clothing, curtains, etc.) for low and high radiation levels
	10GHz	45dB	30.000-fold	99,992%	
Aaronia X-Dream®	1GHz	100dB	10.000.000.000-fold	99,999.999.99%	Interior shielding, metering chambers for high and highest radiation levels
	10GHz	80dB	100.000.000-fold	99,999.999%	

Note: With the attenuation factor dB, each increase of 10dB results in a tenfold increase of the value. Therefore, for example 100dB is ten times more than 90dB or 100 times more than 80dB etc.