Rev 1.4
02.08.2011

Magnetic field shielding foil / shielding sheet Aaronia MagnoShield® FLEX

Screening against static and low-frequency magnetic fields and interference of any kind

References / examples of proof:

- ◆ German military (technical observation), Hof, Germany
- ◆ Philipps GmbH, Munich, Germany
- ◆ Panasonic, Bad Homburg, Germany
- ◆ Max-Planck Institute for nuclear physics, Heidelberg, Germany
- ◆ Robert Bosch GmbH, Magdeburg, Germany
- ◆ Technical University Hamburg, Germany
- ◆ Siemens AG, Munich, Germany
- ◆ University of Newcastle, United Kingdom

**AARONIA AG**
WWW.AARONIA.DE

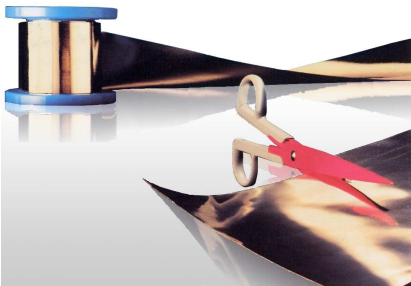
Made in Germany



Specifications

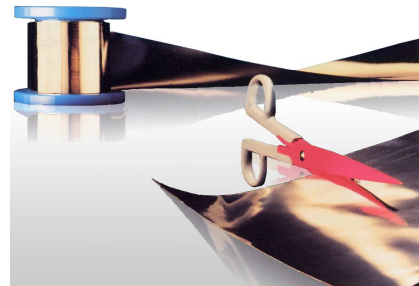
Aaronia MagnoShield® FLEX

- ◆ **Nealed for maximum** shielding efficiency
- ◆ **Shielding factor: 5-7**
- ◆ Saturation flux density: approx. 0,8 Tesla
- ◆ Length per standard packaging unit: 1m (0,155m²), 10m (1,55m²), also available as cut good
- ◆ Lane width: 0,155m (155mm) / Smaller widths on request
- ◆ Weight: approx. 1,1kg/m²
- ◆ Material thickness: 0,1mm
- ◆ Foldable, can be bent and folded without problems
- ◆ Very easy handling and cutting using a knife or scissors
- ◆ Easy to install due to high flexibility
- ◆ Magnetically conductive material: Nickel/iron alloy, so-called Mu metal, isotrope
- ◆ Noncorrosive
- ◆ Frost proof
- ◆ Paintable
- ◆ Colour: dark silver
- ◆ Also available to your specifications (deep-drawn)
- ◆ Also available as self-adhesive version

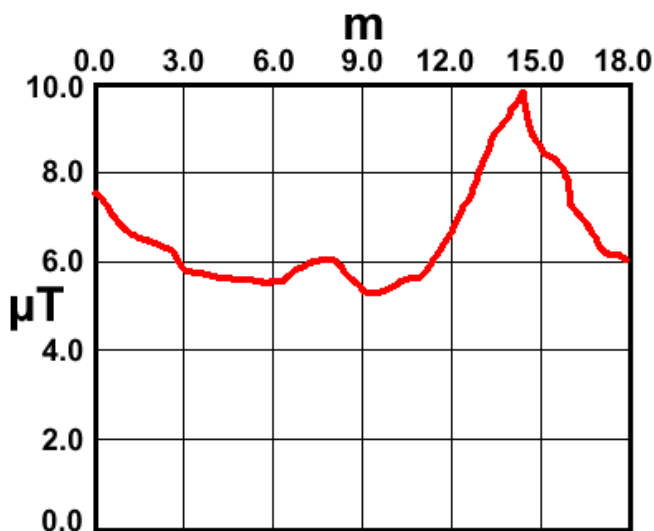


Aaronia MagnoShield® FLEX PLUS

- ◆ **Self-adhesive version** with very high adhesive strength
- ◆ Glue heat-resistant up to 120 C
- ◆ **Nealed for maximum** shielding efficiency
- ◆ **Shielding factor: 5-7**
- ◆ Saturation flux density: approx. 0,8 Tesla
- ◆ Length per standard packaging unit: 1m (0,091m²), 10m (0,91m²), 50m (4,55m²). Also available as cut good.
- ◆ Lane width: 0,091m (91mm) / Smaller widths on request
- ◆ Weight: approx. 1,1kg/m²
- ◆ Material thickness: 0,1mm
- ◆ Foldable, can be bent and folded without problems
- ◆ Very easy handling and cutting using a knife or scissors
- ◆ Easy to install due to high flexibility
- ◆ Magnetically conductive material: Nickel/iron alloy, so-called Mu metal, isotrope
- ◆ Noncorrosive
- ◆ Frost proof
- ◆ Paintable
- ◆ Colour: dark silver

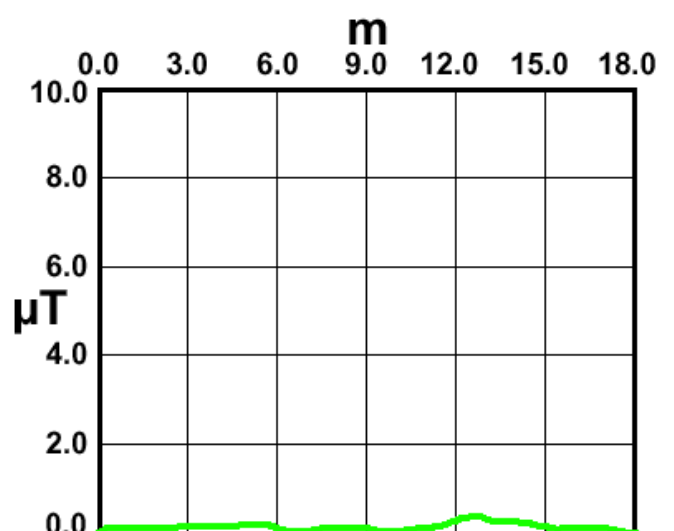


Transmission damping curves:



OHNE MagnoShield® Flex

Magnetic field of a transformer before shielding



MIT MagnoShield® Flex

Magnetic field of a transformer after shielding

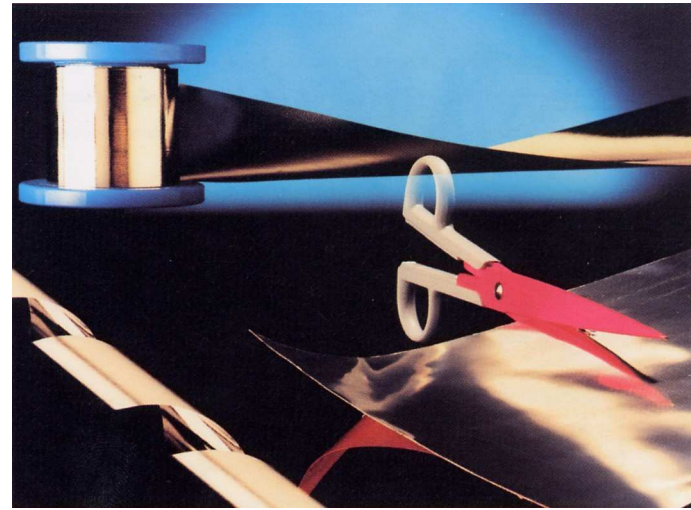
Product description

Aaronia offers a magnetic field shielding which is easy to handle even for the novice: Aaronia MagnoShield® FLEX magnetic field shielding foil. Aaronia MagnoShield® FLEX is very easy to handle and to install. It is highly flexible, sturdy, frost proof, rot proof and noncorrosive.

Aaronia MagnoShield® FLEX has been developed especially for also shielding high-frequency magnetic fields caused by local radiation sources such as cables, transformers, generators, traction power, power distribution boxes, high-voltage lines etc. Aaronia MagnoShield® FLEX allows shielding electronic circuitry, appliances and their chassis against magnetic interference even in highly sensible areas such as control centres, etc.

Installation is very easy especially when using Aaronia MagnoShield® FLEX PLUS, even for the novice. The individual lanes need to be installed with an overlap of approx. 5cm to guarantee the best possible shielding efficiency.

Magnetic shielding performance can be adapted optimally to your requirements by applying several layers of the product.



Aaronia MagnoShield® FLEX and Aaronia MagnoShield® FLEX+ are the highly flexible solution for shielding any kind of electronic appliance, circuitry, sensors and chassis against static (for example, magnets) and low-frequency magnetic fields (for example, transformers, cables, traction power)



Deep-drawn, nealed magnetic field shieldings made from Aaronia MagnoShield® FLEX offer maximum shielding against static and low-frequency magnetic fields of any kind

To shield large areas (for example, entire rooms or buildings) against magnetic fields, we recommend our industrial solution consisting of Aaronia MagnoShield® magnetic shielding panels.

Aaronia MagnoShield® FLEX is nealed and thus offers maximum shielding efficiency against magnetic fields compared to regular materials. Still, Aaronia MagnoShield® FLEX can be folded and bent, which is normally not possible with regular materials, as their shielding efficiency would degrade drastically.

For greater amounts of identically sized units, we recommend custom manufacture to your specifications, giving you a perfect magnetic shielding product. However, please be aware of the one-time, yet considerable tool cost.

For shielding large areas (like rooms and buildings), we recommend our industrial solution consisting of Aaronia MagnoShield® shielding panels.

References

User of Aeronia Antennas, Spectrum Analyzers and screening solutions (Examples)

Government, Military, aeronautic, astronautic

- ◆ NATO, Belgien
- ◆ Boeing, USA
- ◆ Airbus, Hamburg
- ◆ Bund (Bundeswehr), Leer
- ◆ Bundeswehr (Technische Aufklärung), Hof
- ◆ Lufthansa, Hamburg
- ◆ DLR (Deutsches Zentrum für Luft- und Raumfahrt, Stuttgart)
- ◆ Eurocontrol (Flugüberwachung), Belgien
- ◆ Australian Government Department of Defence, Australien
- ◆ EADS (European Aeronautic Defence & Space Company) GmbH, Ulm
- ◆ Institut für Luft- und Raumfahrtmedizin, Köln
- ◆ Deutscher Wetterdienst, Tauche
- ◆ Polizeipräsidium, Bonn
- ◆ Landesamt für Umweltschutz Sachsen-Anhalt, Halle
- ◆ Zentrale Polizeitechnische Dienste, NRW
- ◆ Bundesamt für Verfassungsschutz, Köln
- ◆ BEV (Bundesamt für Eich- und Vermessungswesen)

Research/Development, Science and Universitys

- ◆ Deutsches Forschungszentrum für Künstliche Intelligenz, Kaiserslautern
- ◆ Universität Freiburg
- ◆ Indonesien Institute of Science, Indonesien
- ◆ Max-Planck-Institut für Polymerforschung, Mainz
- ◆ Los Alamos National Laboratory, USA
- ◆ University of Bahrain, Bahrain
- ◆ University of Florida, USA
- ◆ Universität Erlangen, Erlangen
- ◆ Universität Hannover, Hannover
- ◆ University of Newcastle, Großbritannien
- ◆ Universität Strasbourg, Frankreich
- ◆ Universität Frankfurt, Frankfurt
- ◆ Uni München – Fakultät für Physik, Garching
- ◆ Technische Universität Hamburg, Hamburg
- ◆ Max-Planck Institut für Radioastronomie, Bad Münstereifel
- ◆ Max-Planck-Institut für Quantenoptik, Garching
- ◆ Max-Planck-Institut für Kernphysik, Heidelberg
- ◆ Max-Planck-Institut für Eisenforschung, Düsseldorf
- ◆ Forschungszentrum Karlsruhe, Karlsruhe

Industry

- ◆ Shell Oil Company, USA
- ◆ ATI, USA
- ◆ Fedex, USA
- ◆ Walt Disney, Kalifornien, USA
- ◆ Agilent Technologies Co. Ltd., China
- ◆ Motorola, Brasilien
- ◆ IBM, Schweiz
- ◆ Audi AG, Neckarsulm
- ◆ BMW, München
- ◆ Daimler Chrysler AG, Bremen
- ◆ BASF, Ludwigshafen
- ◆ Deutsche Bahn, Berlin
- ◆ Deutsche Telekom, Weiden
- ◆ Siemens AG, Erlangen
- ◆ Rohde & Schwarz, München
- ◆ Infineon, Österreich
- ◆ Philips Technologie GmbH, Aachen
- ◆ ThyssenKrupp, Stuttgart
- ◆ EnBW, Stuttgart
- ◆ RTL Television, Köln
- ◆ Pro Sieben – SAT 1, Unterföhring
- ◆ Channel 6, Großbritannien
- ◆ WDR, Köln
- ◆ NDR, Hamburg
- ◆ SWR, Baden-Baden
- ◆ Bayerischer Rundfunk, München
- ◆ Carl-Zeiss-Jena GmbH, Jena
- ◆ Anritsu GmbH, Düsseldorf
- ◆ Hewlett Packard, Dornach
- ◆ Robert Bosch GmbH, Plochingen
- ◆ Mercedes Benz, Österreich
- ◆ EnBW Kernkraftwerk GmbH, Neckarwestheim
- ◆ AMD, Dresden
- ◆ Infineon Technologies, Regensburg
- ◆ Intel GmbH, Feldkirchen
- ◆ Philips Semiconductors, Nürnberg
- ◆ Hyundai Europe, Rüsselsheim
- ◆ Saarschmiede GmbH, Völklingen
- ◆ Wilkinson Sword, Solingen
- ◆ IBM Deutschland, Stuttgart
- ◆ Vattenfall, Berlin
- ◆ Fraport, Frankfurt

Visit us at Tradeshows/Conferences:



emv

Internationale Fachmesse und Kongress
für Elektromagnetische Verträglichkeit
Düsseldorf, 07.-09.02.2012



Aaronia Distributors



Aaronia USA, 651 Amberton Crossing
Suwanee, Georgia 30024 USA
Phone ++1 678-714-2000, Fax ++1 678-714-2092
Email: sales@aaroniausa.com
URL: www.aaroniaUSA.com



Aaronia UK, Bellringer Road, Trentham, Lakes South,
Stoke-on-Trent, ST4 8GB Staffordshire, UK
Phone ++44(0)845-4379092, Fax ++44(0)870-8700001
Email: sales@aaronia.co.uk
URL: www.aaronia.co.uk



Aaronia Australia Measurement Innovation Py Ltd
Perth - Western Australia
Phone ++61 (8) 9437 2550, Fax ++61 (8) 9437 2551
Email: info@measurement.net.au
URL: www.measurement.net.au



Testpribor, Fabriciusa St. 30
Moscow 125363 Russia
Phone ++7 495-225-67-37
Email: testpribor@test-expert.ru
URL: www.test-expert.ru



Aimil Ltd, B-906, BSEL Tech Park, Opp. Vashi Rly Stn,
400705 Vashi, Navi Mumbai, India
Phone ++91 22 3918 3554, Fax ++91 22 3918 3562
Email: sanjayagarwal@aimil.com
URL: www.aimil.com



Aaronia Israel, Johanan Hasandlar St.
44641 Kfar-Sava, Israel
Phone ++972 72 2500 290, Fax ++972 9 7654 264
Email: kobi@aaronia.co.il
URL: www.aaronia.co.il



Made in Germany

Aaronia AG, Gewerbegebiet Aaronia AG, DE-54597 Strickscheid, Germany
Phone ++49(0)6556-93033, Fax ++49(0)6556-93034
Email: mail@aaronia.de URL: www.aaronia.com

Spectran® HyperLOG® BicoLOG® OmniLOG® Aaronia-Shield® Aaronia X-Dream® MagnoShield® IsoLOG®

are registered trademarks of Aaronia AG