

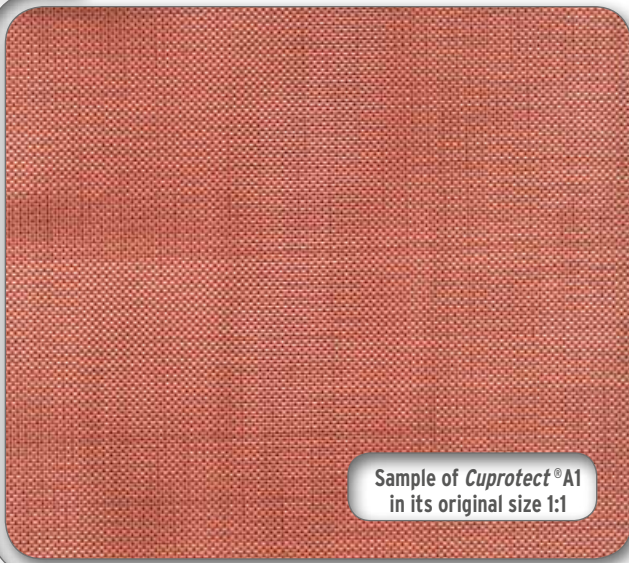
Cuprotect® A1 Shielding Material

Highly effective Cuprotect® shielding systems against technical radiation

Cuprotect® SHIELDING SYSTEMS

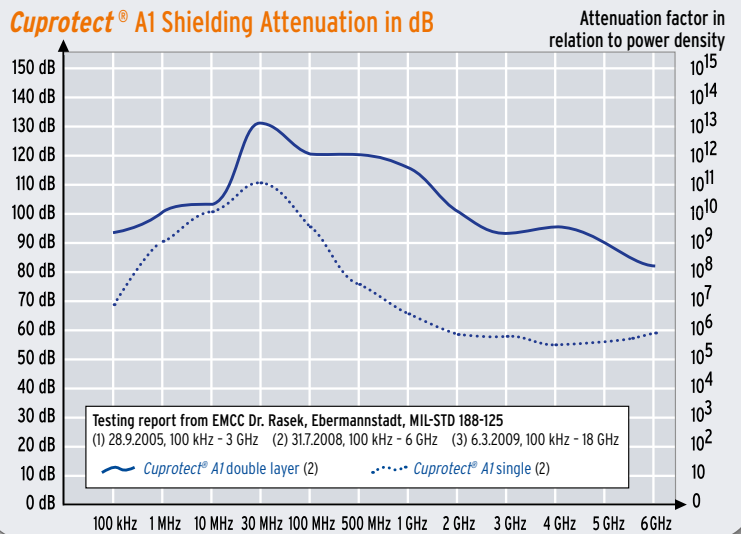
Cuprotect® shielding systems are made entirely of high-quality copper and guarantee highest shielding effectiveness and long-lasting durability.

Since 2001 they have been installed to protect against electromagnetic pollution in residential and commercial buildings, as well as in security applications in the industry, power plants, and shipbuilding.



Sample of Cuprotect® A1 in its original size 1:1

Cuprotect® A1 Shielding Attenuation in dB



Cuprotect®-PATENTS

For the RF shielding and connection techniques, Cuprotect® products have been granted patent protection:

- German Patent Office DE102005023344A1
- European Patent Office EP 1725088
- United States Patent Office US2007084631A1

An additional patent for RF shielding with a perforated sleeve has been filed with the European Patent Office under AZ 07 019 248. The patented connection techniques with pre-folded pieces of Cuprotect® are the only ones that provide an RF-tight and homogeneously conductive shielding plane.



Cuprotect® A1 TECHNICAL SPECIFICATIONS (Product No. CUA0003)

Electrical conductivity:	< 1 mOhm/m
Electrical resistance:	< 1 mOhm = 0,001 Ohm
Specific resistivity:	0,0175
Specific conductance:	57
Melting point:	1083 °C
Fire protection class:	A1 non-flammable building material DIN 4102-4:1994
Minimum order:	1 roll à 24 square metres = 20 linear meters
Free shipping in Germany, plus tax and handling fees.	
A wall/flooring earthing kit is shipped with each roll inside the cardboard core.	

Material:	CU-58 uncoated fine-mesh copper wire
Material thickness:	CUS-mesh 0.44 mm
Size:	W 1.20 m x L 20 m = 24 m ²
Usable width:	ca. 1.12 m; material prefolded on both sides by ca. 40 mm for flat-fell seam
Area factor:	1.11
Allowance for waste:	5-20%, depending on type of installation
Open area:	40%



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CUPROTECT®A1 IS USED IN A WIDE AREA OF APPLICATIONS

- Wood-frame housing
- Roofing areas (pitched roof and flat roof)
- Dry construction in exterior siding and walls
- Exterior shielding in a dry construction system (HEMP)
- Flooring: Dry construction under screed or wood
- Power cables, data and supply lines

Note: By the fine-meshed structure of *Cuprotect*®A1 an extremely high shielding effectiveness is achieved. Especially in higher frequency ranges the shielding attenuation is higher than *Cuprotect*®Spezial. *Cuprotect*®A1 is therefore only suitable for use in dry construction and NOT under plaster, putty or hot bitumen.

EXAMPLES OF APPLICATIONS



Top roof shielding



Flat roof shielding



Exterior shielding in a dry construction system (HEMP)



Exterior shielding in a dry construction



Power cables, data and supply lines

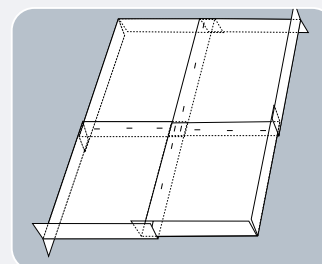
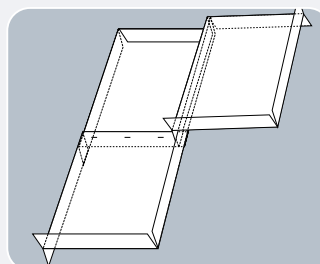
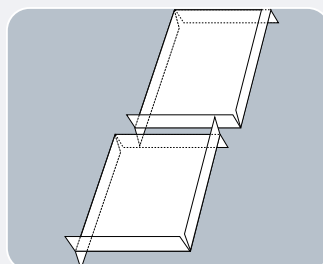
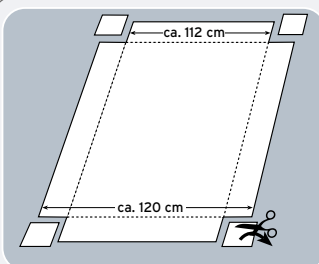


Shielded Rooms and Shielded Chambers

PATENTED FLAT-FELL SEAM

Prefold each of the unfolded short ends by 4 cm of the otherwise lengthwise prefolded and cut pieces, and cut out 4x4 cm pieces at the corners. Fold the left length and the top short end down, and fold the right length and bottom short end up. Prepare all *Cuprotect*® pieces in this manner.

Following the patented flat-fell seam technique, slide the pieces into each other, carefully flatten them, and insert a staple every 5 cm with a pneumatic stapler, two staples in the overlap zone of four pieces. Continue to proceed in this manner with all other pieces. (Also see data sheet on flat-fell seam.)



STAPLING THE FLAT-FELL SEAM

Flat-fell seams are stapled with the pneumatic stapler. Personal protective equipment! Only work with safety goggles and suitable work gloves (anti-vibration gloves).

EARTHING

Prior to preparing the surface, the earthing connections need to be put in place. The first piece of *Cuprotect*® must be connected to the equipotential or main earth bus bar (personal safety) as it is installed.

PERSONAL SAFETY INSTRUCTIONS



Wall/flooring earthing kit according to DIN VDE for connecting the shielding plane with homogeneously conductive materials to the equipotential or main earth bus bar



CAUTION! The enclosed earthing kit must be properly installed by a qualified electrician prior to the installation of the shielding; a connection must be established between the first piece of *Cuprotect*® and the equipotential or main earth bus bar. The *Earthing Guidelines for Electricians Installing Cuprotect*® Shielding Material (edition 10/2007) are to be considered.