

WIRE MESH FOR EMI SHIELDING



METAL MESH FOR SHIELDING FROM ELECTROMAGNETIC RADIATION

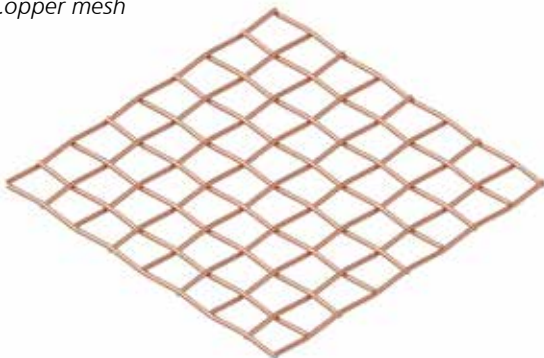
Due to their sensitivity to external electromagnetic radiation, electronic systems require corresponding shielding. On the one hand this requires the shielding from external influences and on the other electromagnetic emissions from electronics or high-energy systems need to be reduced.

Wire mesh produced from conductive metals allows transparent media to be produced that are easy to form and install. With careful connection to the surrounding ground, an effective Faraday cage can be created. Depending on the frequency of the respective radiation, cages like this achieve attenuation values of up to 60 decibels (1:1.000.000).

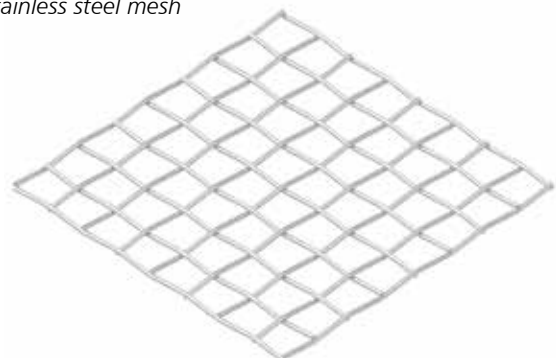
As a general rule, all conductive materials are suitable for performing these tasks. However, the shielding effect increases together with the specific conductivity of the metal. The following metals are available here: stainless steel, aluminum, bronze and copper.

Depending on the type of mesh, GKD produces material in widths ranging from 1 to 3 meters.

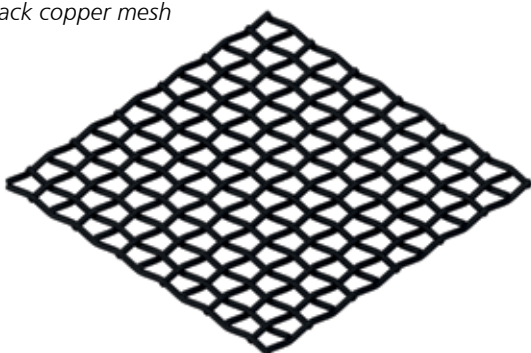
Copper mesh



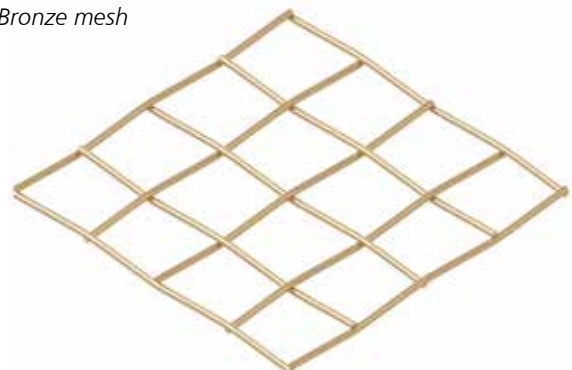
Stainless steel mesh



Black copper mesh



Bronze mesh



OPTICAL AND NON-OPTICAL APPLICATIONS OF METALLIC MESH

Shielding mesh applications generally fall into one of two categories: optical and non-optical applications. In the case of optical applications, for example as a conductive layer in glass windows, displays and transparent covers, mesh with a high degree of transparency and low reflection is generally required. Metallic meshes with extremely homogeneous, deep black color are available for this.

For applications in which composite parts need to be produced with a shielding component, GKD offers a very wide range of meshes that have been approved in the aviation industry. These can be integrated into the composites either as a „dry“ layer or added directly as prepreg. Alongside their shielding effects, they also perform the function of lightning strike protection in exterior applications.

All other applications in the field of architecture (e.g. acoustic ceilings), interior design or general housing production that are designed more with a view to meeting mechanical requirements such as stability, weight or costs can also be addressed using metallic meshes.

You can find further information on our website at www.gkd.de under:

- Industrial mesh - EMI shielding
- Architectural mesh - Silentmesh

EMI SHIELDING MESHES – TECHNICAL DATA / PRODUCT OVERVIEW

Mesh Count/OPI per inch	Mesh size mm	Wire diameter mm	Material	Open mesh area %	Area weight kg/m ²	Mesh thickness mm	Weave pattern ---	GKD Art. No ---
50	0.458	0.050	Copper	81	0.072	0.100	Plain	10203400
100	0.198	0.056	Copper	61	0.180	0.112	Plain	10201605
145	0.120	0.056	Copper	46	0.259	0.112	Plain	10201000
35	0.936	0.080	Bronze	85	0.080	0.160	Plain	10257758
50	0.455	0.053	Bronze	80	0.080	0.106	Plain	10255900
166	0.090	0.063	Bronze	35	0.370	0.126	Plain	10251355
200	0.075	0.052	Aluminum	35	0.020	0.104	Twilled	10240205
100	0.198	0.056	Copper black	61	0.140	0.112	Plain	10201608
100	0.223	0.031	Stainless steel black	77	0.032	0.062	Plain	10371031
80	0.287	0.031	Stainless steel black	81	0.027	0.062	Plain	10372865

For further information please visit our website:
<http://en.gkd.de/industrialmesh/squareweave/>

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