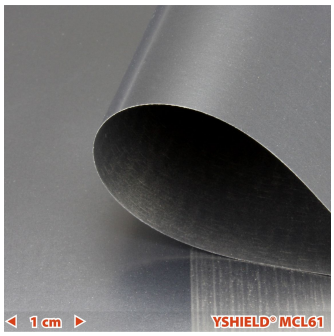
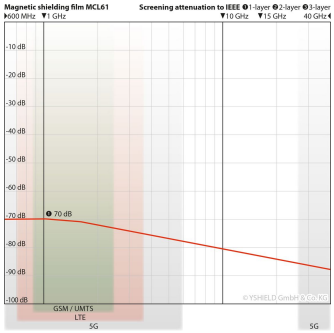
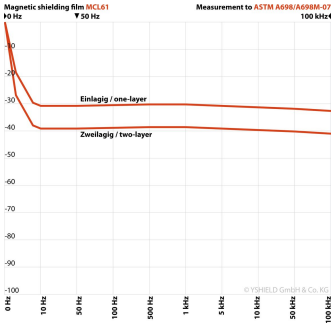
YSHIELD® MCL61 | Magnetic field shielding film | Width 61 cm | 1 meter

Novel film to shield LF magnetic fields with 30 dB attenuation = 97 %.



YSHIELD® MCL61





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MCL61 is our **novel magnetic shielding film made from an amorphous cobalt alloy** for shielding of low-frequency alternating magnetic fields. Also shields low-frequency electric alternating fields (LF) and high-frequency fields (HF).

Statical magnetic fields: Other than stated in the headline, this product is not MUMETALL®. We are utilizing a newer alloy which provides a better shielding. MUMETALL® is promoted to shield statical magnetic fields, refered to the usually used foils (material thickness 0.1 mm) the effect of the shielding is quite low indeed. **We are using cobalt based alloy which attenuation is increasing from strength to strength of the velocity of the magnetic fields.** There are no velocities by statical magnetic fields or by permanent magnets, that is why this product won´t shield those.

In comparison with MUMETALL® our new MCL61 has many advantages: MUMETALL® is soft and sensitive, on bending, to shocks and on processing it looses the attenuation very fast. The cobalt strips in our MCL61 are **flexible but hard** even at small bending radii. The attenuation remains constant even at high mechanical stress. Because the cobalt strips are only 20 µm thin, 50 mm width and sharp like a knife, we **laminate it for protection**. Due to the lamination MCL61 is corrosion-resistant even in humid environments. With a width of 61 cm big areas are shielded faster compared to 15 cm width MUMETALL®-strips. MCL61 can easily be cut with scissors.

Technical data

- **Width: 61 cm**
- **Length: By the meter / 20 m roll / 290 m roll;** Because of the high production costs, we allow to divide up the ordered quantity!
- **Attenuation LF magnetic field: 30 dB (97 %)**; The attenuation depends on the number of phases, cable twisting, the size of the area, etc.; Work in large areas: Shield cables with 1-2 sheets, fuse-boxes with 2-4 sheets;
- **Attenuation HF: 70 dB**
- Weight: 265 g/m²; Material thickness: 0.1 mm; Color: Silver
- Permeability: µ 2 = 10,000; µ 4 = 25,000; µ max. = 100,000;
- Saturation polarization Bs: 0.55 T
- Coercive field strength Hc: 0.5 A/m
- Remanence Br/Bs: 0.7
- Curie temperature Tc: 225 °C
- Materials: Polyester, Co, Fe, Mo, Nb, Si, B

Processing

Warning: Cutting edges are sharp like a knife! **Important:** Its difficult to glue the film free of creases, best cover the area with solid wall coverings. **Wall, ceiling, floor:** Use a high-viscous assembly adhesive, that adheres to the non-absorbent polyester film. We urgent recommend tests on a test surface! Smooth the glue, lay up the film, smooth with a pressure roller or squeegee. The sheets of MCL61 should be overlapped, level out the overlappings, paint it over with any commercial synthetic dispersion paint. Please pay attention that the film is a water vapour barrier on wall areas!

Grounding

MCL61 is electrically isolated. To ground it, every strip has to be screwed with a **chopper disk**, that penetrates the polyester film. The **grounding set GCL** contains all parts for 10 strips.