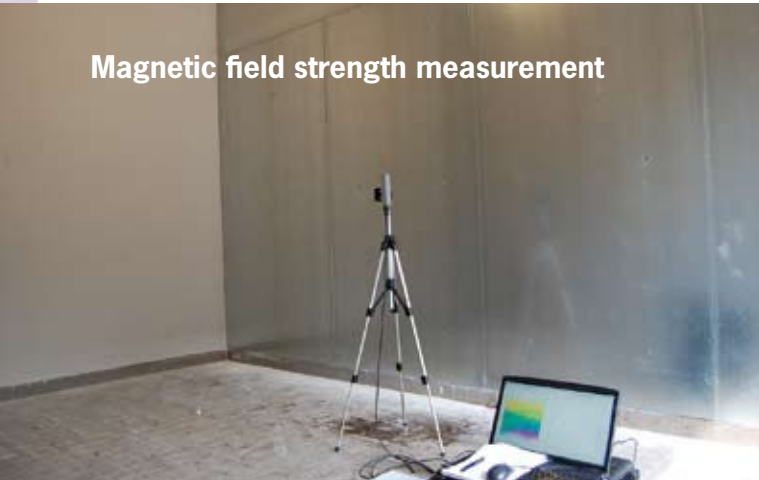


# Magnetic Shielding

Low frequency magnetic shielding



## Magnetic field strength measurement



## MuFerro 6800

### Low-frequency magnetic shielding

A new material for shielding / screening low-frequency magnetic fields has been developed. These fields are generated by installations in which high currents flow, for example transformer rooms, power lines, busbar systems and nearby high-voltage cables.

### Indoor transformer rooms



The frequency of these magnetic fields is typically 50/60 Hz. But the MuFerro material is suitable for magnetic shielding in frequency ranges from 0 Hz to 100 KHz.

### Customer Benefits

- Cost-effective solution
- Up to 95% field-strength reduction and more
- Flexible design
- Measurement report
- Can be delivered with 10-year guarantee

MuFerro combines permeable and satiety characteristics which make it extremely suitable for screening low-frequency magnetic fields.

## Why use magnetic shielding/screening?

Strong magnetic fields can interfere with or damage electronics in the direct surroundings of the field. In addition, magnetic fields negatively affect sensitive measurements in hospitals and laboratories. Apart from their impact on electronics, magnetic fields may pose a serious threat to human health and well-being. For this reason many countries have adopted the recommendation that for working spaces exposure should be  $< 0.4 \mu\text{T} = 400 \text{ nT}$ .

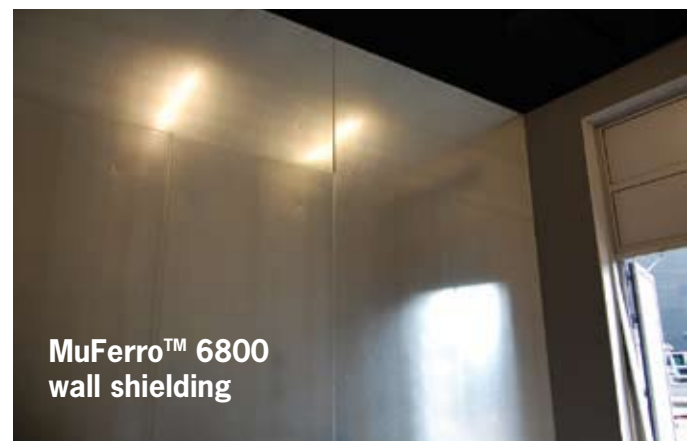


## Applications

- Transformer rooms (indoors or outdoors)
- Power plants
- Hospitals / laboratories
- Aluminium melting/production
- High-voltage labs
- Anything that creates high magnetic fields (high currents)
- Bus bars

Magnetic shielding can be realized even after the transformer has been placed. For screening whole buildings, or rooms, the shielding material is applied to walls, ceilings and/or floors. This protects both people and electronics.

For magnetic shielding of electronic devices Mu-ferro 6800-HD is available in 1 and 0.5 mm thick plate material.



# Magnetic Shielding

Low frequency magnetic shielding



## Magnetic shielding for sensors and electronic devices

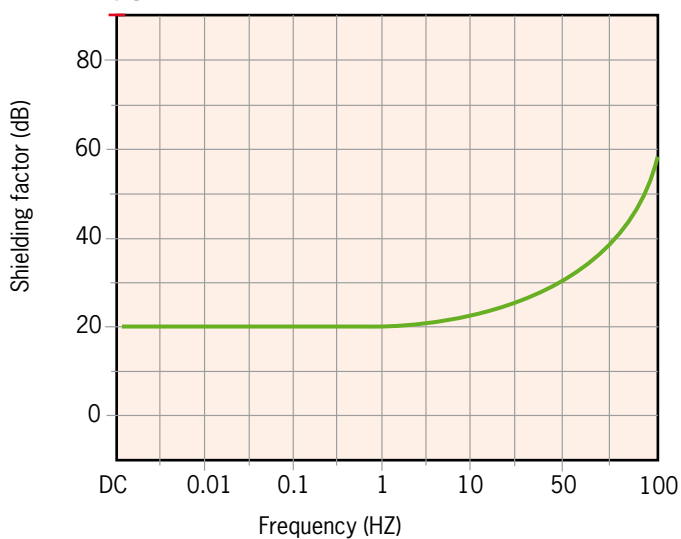
For magnetic shielding of electronic devices and PCBs, Mu-ferro 6800-HD has been developed. Mu-ferro 6800-HD is used to prevent a device emitting low frequency magnetic radiation (0Hz – 300KHz), or it is applied around a sensitive device or sensor, to prevent the electromagnetic interference disrupting normal operations.

Mu-ferro 6800-HD offers important magnetic field shielding characteristics, due to its high magnetic permeability and its ability to absorb magnetic energy. This allows for the highest possible attenuation, making this shielding alloy the material of choice for reducing low-frequency electromagnetic interference.

For magnetic shielding of electronic devices, Mu-ferro 6800-HD is available in 1 and 0.5 mm thick plate material. In addition we can produce custom shapes which will yield the best possible shielding effect for your needs.

Mu-ferro 6800-HD is also available as a foil, delivered on rolls (0.024 mm thick) with or without regular or conductive self adhesive for high frequency shielding and easy mounting.

### Shielding performance 2 mm Mu-ferro-HD



## Mu-ferro HD

### Properties

Carbon	0.02%
Manganese	0.50%
Silicone	0.35%
Nickel	80.00%
Molybdenum	4.20%
Iron	Balance
Density kg/m <sup>3</sup>	8747
Thermal conductivity W/m·K	34.6
Electrical conductivity micro-ohms	580

### Applications

- Aviation and aerospace industry
- Sensitive sensors
- Medical equipment
- Physics research
- Telecommunication
- Automotive
- Military

Ordering information

### Example

Sheet of Mu-Ferro-HD, 50 x 1000 mm and 1 mm thick.

Part number	Width (mm)	Length (mm)	Thickness
Mu-Ferro-HD	50	1000	1 mm
	Specify the width in mm	Specify the length in mm	Thickness in mm 0,5 mm 1,0 mm

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