

FERROXTILE

LX

LS

LG



**CERAMIC TILES FOR LOW FREQUENCY
ELECTROMAGNETIC PROTECTION**



(A spin-off of the Center for Research and Technology Hellas)

FERROXTILE L PRODUCTS

Electromagnetic radiation and its possible effects on the health of human beings has been and continues to be very often the subject of many discussions on social, political and scientific level. A large number of reports published in the international scientific literature provides strong indications that long term exposure may give rise to serious biological disturbances. The European Community suggests a precautionary approach until more scientific evidence becomes available. There are several ways to deal with the issue. One of them is electromagnetic shielding.

FIELDS, a spin off of the Laboratory of Inorganic Materials of the Center of Research and Technology Hellas introduces the new serie of advanced ceramic tiles FERROXTILE LX, LS και LG, specially designed to absorb and dump the magnetic field originated from low frequency

Sources such as these of the components of the electricity supply and distribution network (i.e. pylons, power conversion stations etc.)

Based on the principles of ferromagnetic resonance the FERROXTILE tiles offer a number of advantages when compared to other electromagnetic shielding solutions.

- They are compatible with all usual building materials and do not require special mounting techniques.
- Radiation is absorbed, dumped and not reflected to any possible surrounding space.
- No ground is required in contradiction to solutions involving conducting materials.
- Due to their low thermal conductivity they have very good thermal insulating properties.
- Since no optical contact to the source is required, they can be placed as an intermediate, and thus invisible, "insulating sheet".

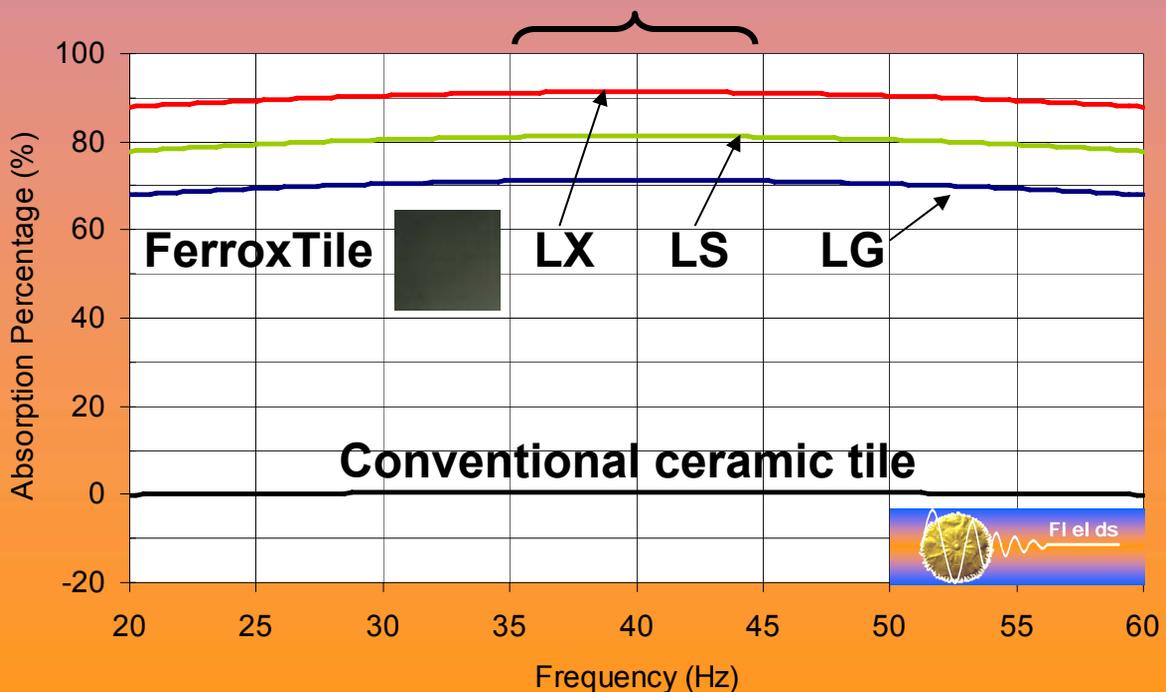
➤ The absence of reflections makes Ferroxtile products also effective in reducing the radiation level in spaces with high density of electric and electronic devices.

➤ They are offered at reasonable prices

FERROXTILE L series products consist of stable and chemically inert ceramic materials. Their life time is similar to this of other building materials and do not require any maintenance.

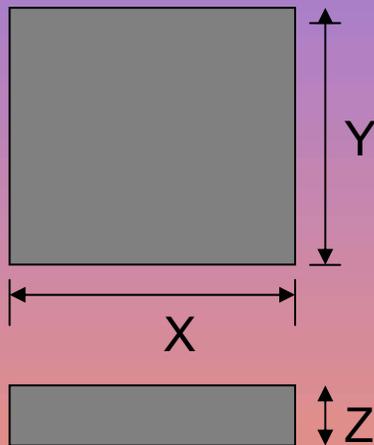
FERROXTILE L tiles are suitable for shielding of building surfaces exposed to strong low frequency magnetic field sources (e.g. ~50Hz).

In addition FIELDS offers electromagnetic field measuring services as well as advices on an optimized and cost effective surface coverage.



TECHNICAL DATA

Property	Conditions	Typical Value	Unit
Density	-	4800	Kg m ⁻³
Maximum operation temperature	-	220	°C
Specific Resistance	DC, 25°C	10 ⁴	Ω m
Thermal Conductivity	0-50 °C	38	mW cm ⁻¹ °C ⁻¹
Thermal Expansion Coefficient	25-50 °C	5 x 10 ⁻⁶	°C ⁻¹
Mechanical Strength	-	90±10	MPa



Type FerroXTile	Dimensions*			Mass (g)	Typical absorption percentage (%)
	X(cm)	Y(cm)	Z(mm)		
L X	10±0.2	10±0.2	6±0.3	~300	>90
L S	10±0.2	10±0.2	5±0.3	~250	>80
L G	10±0.2	10±0.2	4±0.3	~200	>70

*Types L S και L G are also available at X=15cm, Y=15cm upon request



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