

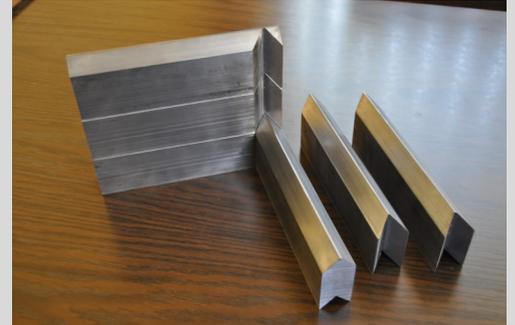


DESCRIPTION

Lead is an excellent shielding against electromagnetic radiation (gamma and X-rays) due to its density of $11,33 \text{ g/cm}^3$, high atomic number, degree of stability and also because it is so easy to work with. From an economic point of view, its availability and cost make it very attractive in comparison with other elements that have a similar density.

For those situations requiring a higher shielding level, fixed lead screens of variable thickness are used, which are very heavy unit pieces. As an alternative to these screens, we can offer lead bricks available in several widths, which allow to achieve the appropriate protection level. Being smaller pieces, bricks make that assembly, disassembly and reinstalling operations for any permanent or temporary shielding become easier.

AMAT METALPLAST's bricks are manufactured by an extrusion process followed by mechanisation. This process ensures homogeneity of composition and precision of dimensions. Therefore, the bricks have a smooth, clear and non-porous surface.



COMPOSITION

Bricks are made of lead, with a purity of 99,985%, alloyed with 4% antimony. This formulation complies with standard UNE 37-223-83 and with the European standard (ISO 7212-1986 and ISO 9404-1991) relevant to this subject.

The purpose of antimony is to grant hardness to bricks, so that constructions are stable, and avoid deformities in case of impacts during construction.

There are other possible compositions according to our customer's requirements.

APPLICATIONS

Lead bricks are parts intended for the construction of both temporary and permanent screens and shields as a protection against radiation action.

DELIVERY TIME

Usual delivery time: 2-3 weeks.

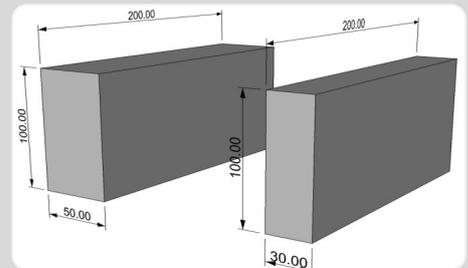


PARALLELEPIPED BRICK (RECTANGULAR)

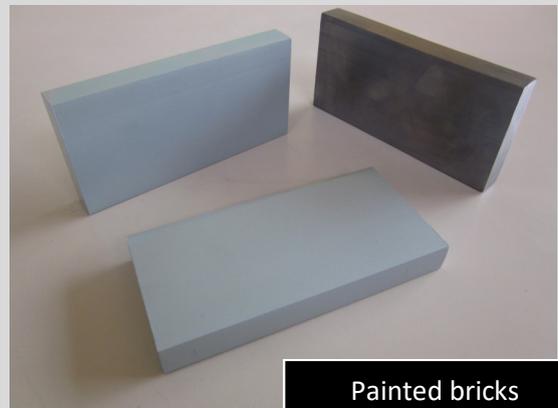
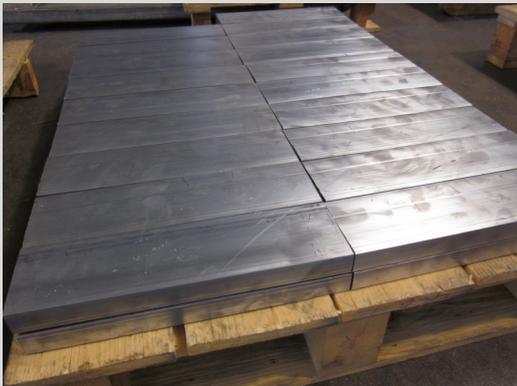
We can offer a wide range of dimensions, thicknesses and shapes, which are tailored to meet your needs.

We offer the following standard models:

Thickness	Height	Length	Weight
50mm	100mm	100mm	5,65Kg
50mm	100mm	200mm	11,3Kg
30mm	100mm	100mm	3,39Kg
30mm	100mm	200mm	6,78Kg



PARALLELEPIPED BRICK



Painted bricks

With stainless steel covering

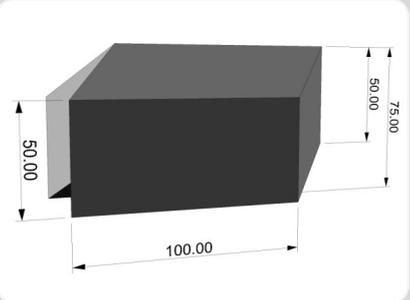


INTERLOCKING BRICK

The standard brick is a block with the inside and outside faces, about 100x50 mm, parallel. The rest of the faces form dihedral angles of 90°, some penetrating inside the block and the others standing outside the block.

The thicknesses available are the following: 50, 40, 30, 25 and 20 mm.

We have two kinds of standard bricks: 100mm long x 50 mm high and 100mm long x 100 mm high.



	Weights for 50 mm thickness x 100 x 50	LONG MODEL Left side	STANDARD MODEL Central	SHORT MODEL Right side
	Top view → Side view ↓			
ROOF		 2,5Kg	 2,26Kg	 2,00Kg
MIDDLE		 3,12Kg	 2,81Kg	 2,46Kg
BASE		 3,92Kg	 3,48Kg	 3,03Kg





L-SHAPED AND Z-SHAPED BRICKS

The L-shaped and Z-shaped bricks were designed by personnel from the ALBA Synchrotron facility for the Faraday Cup shielding in the LINAC.

The L-shaped and Z-shaped bricks can be used to build constructions in a single format or to combine L-shaped and Z-shaped bricks in the same construction.



Our standard L-shaped brick measures 150x50x50 mm and the Z-shaped brick measures 50x50x150 mm, although we can also manufacture bricks with another length up to 600 mm.

