

Technical Products

Lead Engineering

Construction

**Radiation Protection and Soundproofing**



## SOLUTIONS FOR PEOPLE AND TECHNOLOGY



Lead was already recognised by Wilhelm Konrad Röntgen, who discovered X-rays and recognised lead as an ideal material for radiation protection. Even today, lead is still the most cost-effective method of shielding against radiation – particularly against X-rays and gamma rays.

The high atomic number, the consequent high density and the fact that lead cannot be activated by neutrons are three essential properties of this material.

Further advantages are: Good workability, low price in relation to materials with equivalent screening effect and a high recycling potential.

Röhr + Stolberg GmbH has for decades been a leading manufacturer of the lead products which are perfect for radiation protection and soundproofing. Our continuous inspection systems underpinned by our certified quality management procedures provides guaranteed high technical standards for our products, and compliance with the underlying standards and the requirements of specific customer needs. We have a wide range of modern extrusion presses, mould and die-casting machines. We also manufacture all our own tools and have a diverse mechanical processing equipment. We can offer bespoke radiation protection solutions to meet your exact requirements.



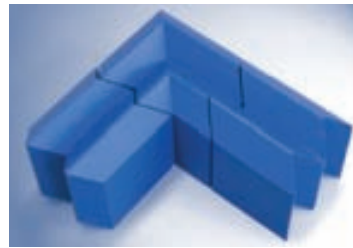
DIN EN ISO 9001 2000  
ISO TS 16949 2002  
Zertifizierung

ISO TS 16949 for the  
scope of production and  
distribution of  
battery eliminator for  
lead accumulator

*To ensure the lasting  
quality of our products,  
we are DIN EN ISO 9001 and  
DIN ISO TS16949 certified.*

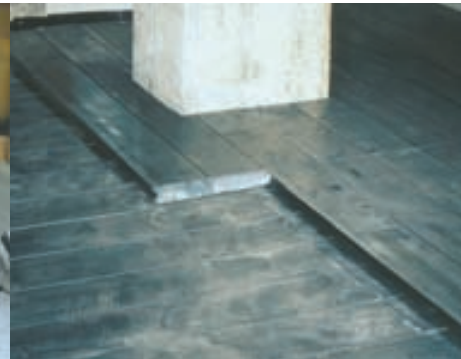
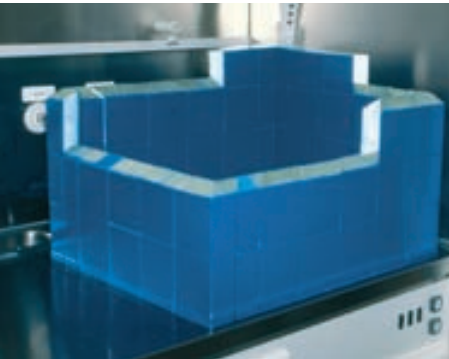
### LEAD BRICKS

For building walls, roofs and floors. Lead bricks are now included in DIN EN 25407.



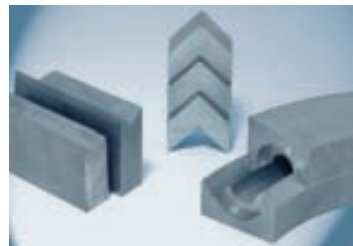
*lead bricks*

## PRODUCTS OF RADIATION PROTECTION



### LEAD PROFILES

An alternative to lead building blocks is the use of prismatic toothed profiles. Using this system, shielding can be built-up in different thicknesses.



*lead profiles*

### LEAD SHEETS/ROLLED LEAD BLANKS

Mainly used for laying in floors and roofs. If necessary in construction, the specified radiation protection (overall thickness) can be satisfied by laying filling for joins.



*lead sheets/  
rolled lead blanks*

### LEAD WOOL

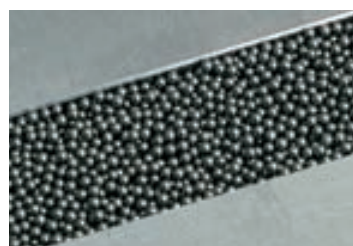
Lead wool as a material is ideal for use in the manufacture of our flexible radiation protection mats and as shielding for areas which are difficult to access.



*lead wool*

### LEAD SHOT

This material is most suitable for cold filling of shielding containers. A specific weight of approx. 6.6 kg/dm<sup>3</sup> is required. Lead granulate "S" uses layered filling of 10 mm balls and fine pieces with a particle size of 0.4 - 0.8 mm to achieve a specific weight of 9.25 kg/dm<sup>3</sup>.



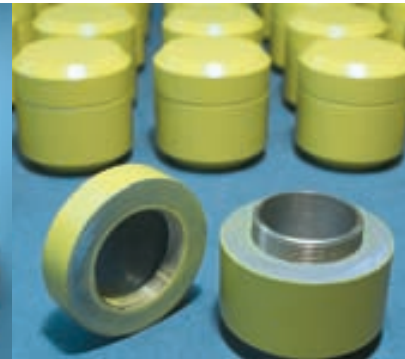
*lead granulate*

**FLEXIBLE LEAD MATS**

Suitable for producing mobile radiation protection walls because of their flexibility for enveloping defective pipes.



*flexible lead mats*



**SINKS**

As a counterpart for cold filling, the product we manufacture is virtually free of cavities. We can produce items of practically any weight.



*sinks*

**CASTINGS**

Produced according to customer specifications. If you wish, we can carry out mechanical processing after production.



*end product*

**EXTRUSION PRESSED PARTS**

Used for the screening of X-ray equipment and associated equipment, extruded lead ensures good the density of the material to meet the standards.



*extrusion pressed parts*

**CUSTOM-MADE PRODUCTS**

In order to meet any specific radiation protection requirements, we operate a modern toolmaking facility and innovative manufacturing systems.



*diposal receptable*

**LEAD CONTAINERS**

For the transport and storage of radioactive materials. This covers both containers for nuclear medicine and for disposal of radioactive waste from nuclear installations.

**LEAD – PHYSICAL PROPERTIES**

density at 20 °C: 11.336 kg/dm<sup>3</sup>

melting point: 326 °C - 327 °C

hardness: 4HB 10/62,5/30

**LEAD-ANTIMONY ALLOYS**

alloy	density
PbSb1	11,26
PbSb2	11,18
PbSb4	11,03
PbSb6	10,88

**DEFORMATION PROCESS**

squeeze

rolling

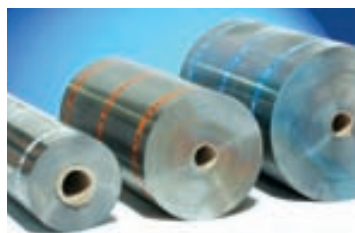
stamping products

hand casting

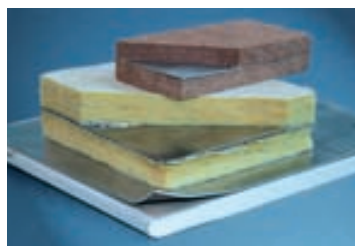
pressure casting

**SOLUTIONS FOR EFFECTIVE RADIATION PROTECTION**

pipe shielding



lead roll products



laminated lead plate products



self-adhesive lead strips

**SOUNDPROOFING**

The ever increasing problem of noise pollution requires effective soundproofing. Lead is an ideal material for this application because of its high density.

**ROLL AND PLATE PRODUCTS**

Rolled lead in various thicknesses is used in roll and plate form to meet specific radiation protection and soundproofing requirements. A very wide range of building materials, including plasterboard, mineral wool, wood and steel can be lined with lead during manufacture or on site.

**SELF-ADHESIVE LEAD STRIPS**

In addition to these products we produce self-adhesive lead strips of various thicknesses for covering joints.



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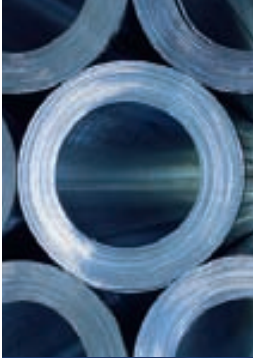
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**CONSTRUCTION**



**TECHNICAL PRODUCTS**



**LEAD ENGINEERING**