

CONSTRUCTION | INDUSTRY Regupol® | Regufoam®

Vibration Insulation

Application
Regupol® and Regufoam®



www.berleburger.de

Vibration Insulation

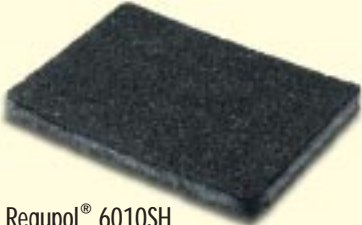
Over

Regupol®

Rubber product range



Regupol® 6010BA



Regupol® 6010SH



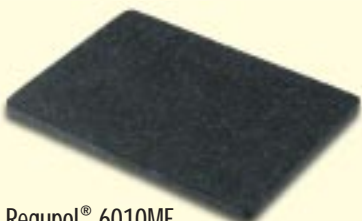
Regupol® 6010PL



Regupol® 6010HT



Regupol® 6010XHT



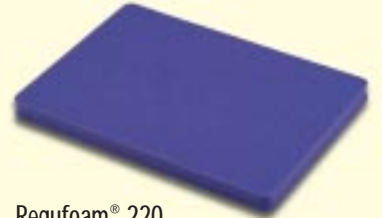
Regupol® 6010MF

Regufoam®

PUR product range



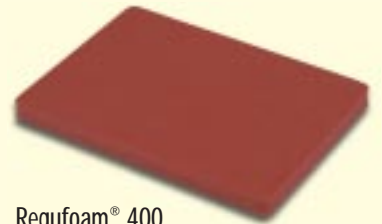
Regufoam® 150



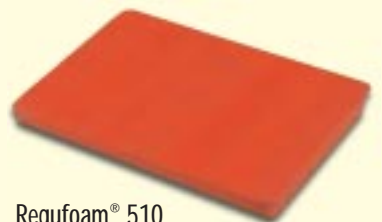
Regufoam® 220



Regufoam® 300



Regufoam® 400



Regufoam® 510



Regufoam® 680

2 ways
1 goal

Optimal vibration absorption and insulation of structure-borne sound
Regupol®, the high-grade rubber product and Regufoam®, the high-grade PUR product, supplement each other perfectly and guarantee versatile, specific solutions for all tasks in the civil engineering and construction industries requiring effective insulation.

view Contents



Road Construction

For rail and tunnel construction, as well as for road and bridge construction, materials from BSW are used for vibration insulation and shock-proofing.



Foundations

To protect against ground vibration, even large buildings can be carried on Regupol and Regufoam with the appropriate load distribution slabs.



High-Rise Building

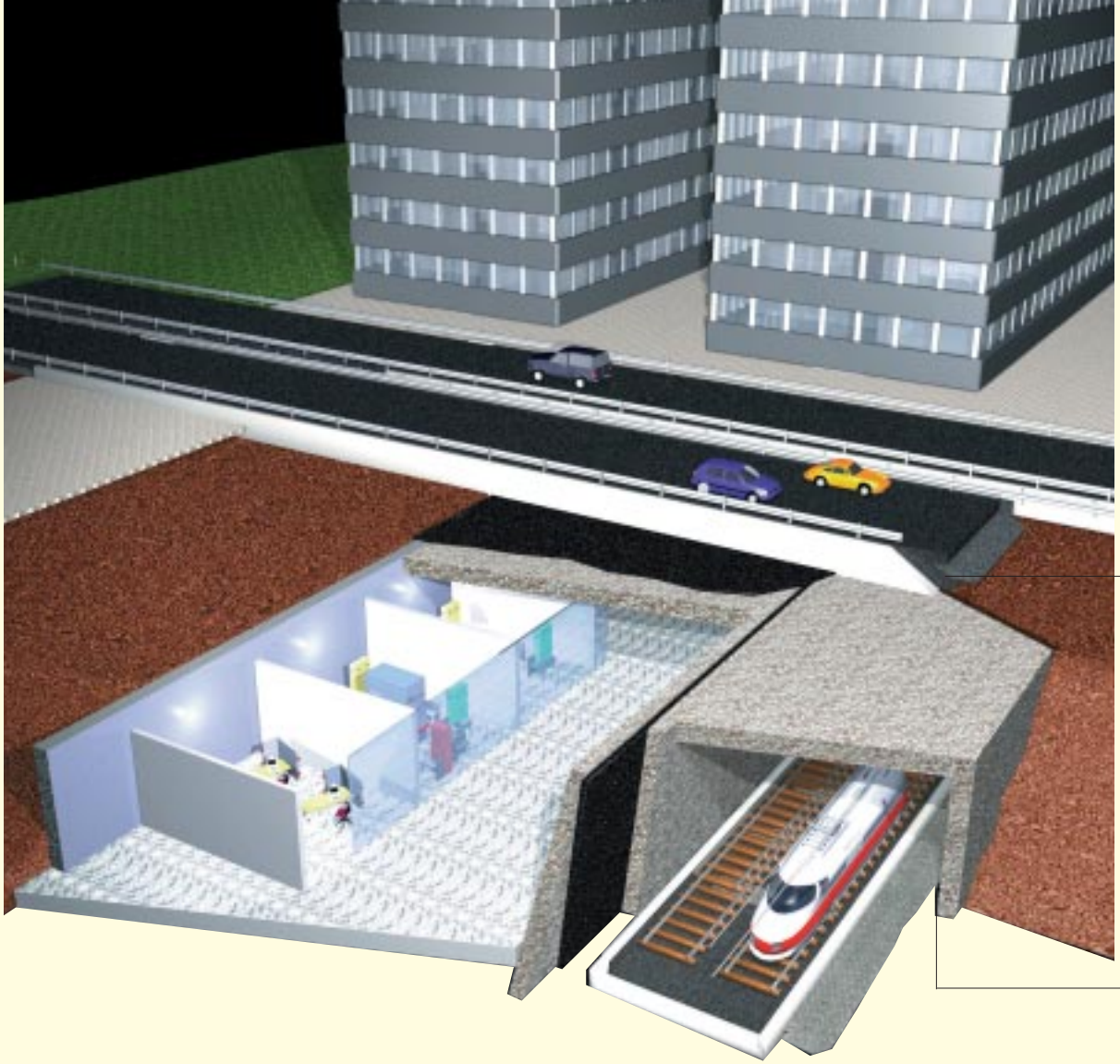
Whether for elevator motors, pumps, ventilation systems or block-type thermal power stations, structure-borne sound insulation and vibration absorption with Regupol® and Regufoam® is simple and permanent.



Industry

Here Regupol® and Regufoam® are used for the active insulation of machines and the passive insulation of floor slabs for precision measuring instruments, laboratory facilities or measuring chambers. Both subcritical and supercritical bearing is possible.





The construction of buildings on old existing underground railway systems requires, in most cases, a soft, resilient separation layer between the building and the tunnel. Selection of the appropriate insulation material depends on different factors, such as the speed of the trains, condition of the wheels and rails, type and thickness of the tunnel walls. Before determining the insulation material, it is advisable to take measurements of the intensity of vibrations on the tunnel wall.

Road and Tunnel Construction



Road Construction

For planners and engineers, Regupol® and Regufoam®, in combination with extruded high-resistance foam, are a safe method of insulating roads and car-park decks.

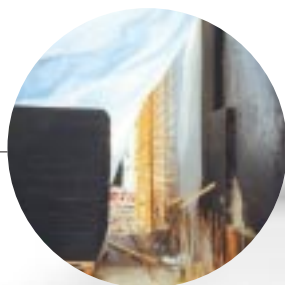


Thermal insulation with sheets of extruded high-resistance foam and structure-borne sound insulation with 15 mm Regupol®.
Project: Potsdamer Platz, Berlin.

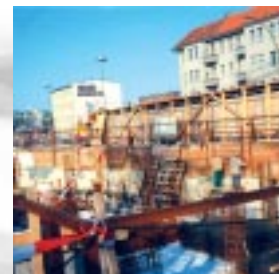


Tunnel Construction

BSW supplies special rubber tiles for vertical insulation between underground railway tunnel walls and new buildings. To protect against penetration by moisture from concrete or sound bridges which will transmit structure-borne sound, a special double-layer, internally lubricated PVC foil must be hung over the Regupol. Regupol® and Regufoam® are also ideal insulating materials for floor slabs in railway or tram tunnels track.

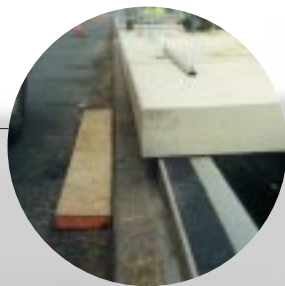


The new building's external wall presses directly onto Regupol® via the foil.



Bridge Construction

An example of a simple method of vibration and motion insulation. Here, Regupol® was bonded to concrete beams



Resilient bearing beneath a concrete pedestrian walkway over a bridge length of approx 2.5 kilometres



Build Con Fo



Vibration insulation of buildings is a complex task. There are a range of different solutions, depending on the nature and intensity of the source of the vibrations.



When a building is being planned close to a railway, underground railway or tram line, the ground vibration must be measured by a registered acoustic consultant before building starts. Based on these measurements, the type of bearing required and design of the building in question (slab thickness, etc.) can be determined.

Iding struction undations

Foundations

Here, the entire base slab was covered with Regupol®.

The foundations in the earth and the compression distribution slabs were also insulated at the sides.

This provided excellent insulation against the vibrations from the nearby railway.



Application of the 15 mm insulating layer to the base slab.





Hi Co Vib

In large buildings, there are many sources of noise, each of which must be assessed individually. A boiler or plant room for example, will be insulated differently, depending on whether it is in the basement, on the fourth floor or on the roof. For a helicopter landing pad on a hospital roof, dynamic forces - landing impact - must be taken into consideration along with the static forces. For multi-purpose buildings, apartments above a supermarket, for instance, the supermarket floor should also be attenuated for structure-borne sound as this will be transmitted in all directions through the entire structure of the building.

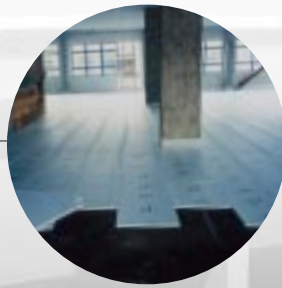


gh-Rise Instruction ration Absorption



Floating Floors

In this special field, double or single layers can be applied where impact and structureborne sound insulation values of up to 40 dB can be achieved. An excellent solution for Leisure Areas, Multiplex Cinemas and Bowling.

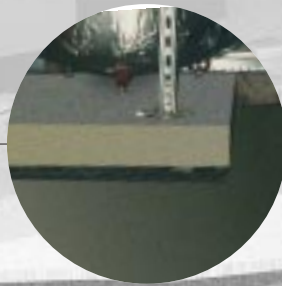


Floor construction with Regupol® for impact sound reduction and extruded high-resistance foam for thermal insulation.



Technical services and plant areas

Technical service and plant rooms are insulated against structureborne sound with Regupol® or Regufoam®. Applying insulating layers of up to 50 mm is quite common practice. 10 cm concrete slabs are suitable for use as a steadying mass and for load distribution.



An example of a typical foundation insulation for technical service facilities.



Such installations should always be designed in co-operation with structural engineers, as there are often several parameters which can contribute to the success or failure of vibration insulation.



When machines are in operation, motion and vibration is inevitable. This has an effect on the buildings and installations inside them and can lead to serious faults. Vibration insulation with Regupol® and Regufoam® can prevent such problems arising. By lining inertia block pits or isolating plinths.



Industry machines



Machines

With their low natural frequency, Regupol® and Regufoam® provide excellent insulation of structure-borne sound. From large-scale kitchen appliances and milling, planing and printing machines, right up to crash-test installations for the motor industry, these two products provide a safe, cost-effective solution.

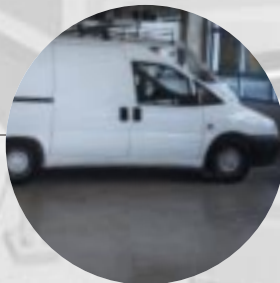


Insulation of a printing works floor which is subject to extreme loads by the printing machine and the heavy pallets of paper.



Vehicles

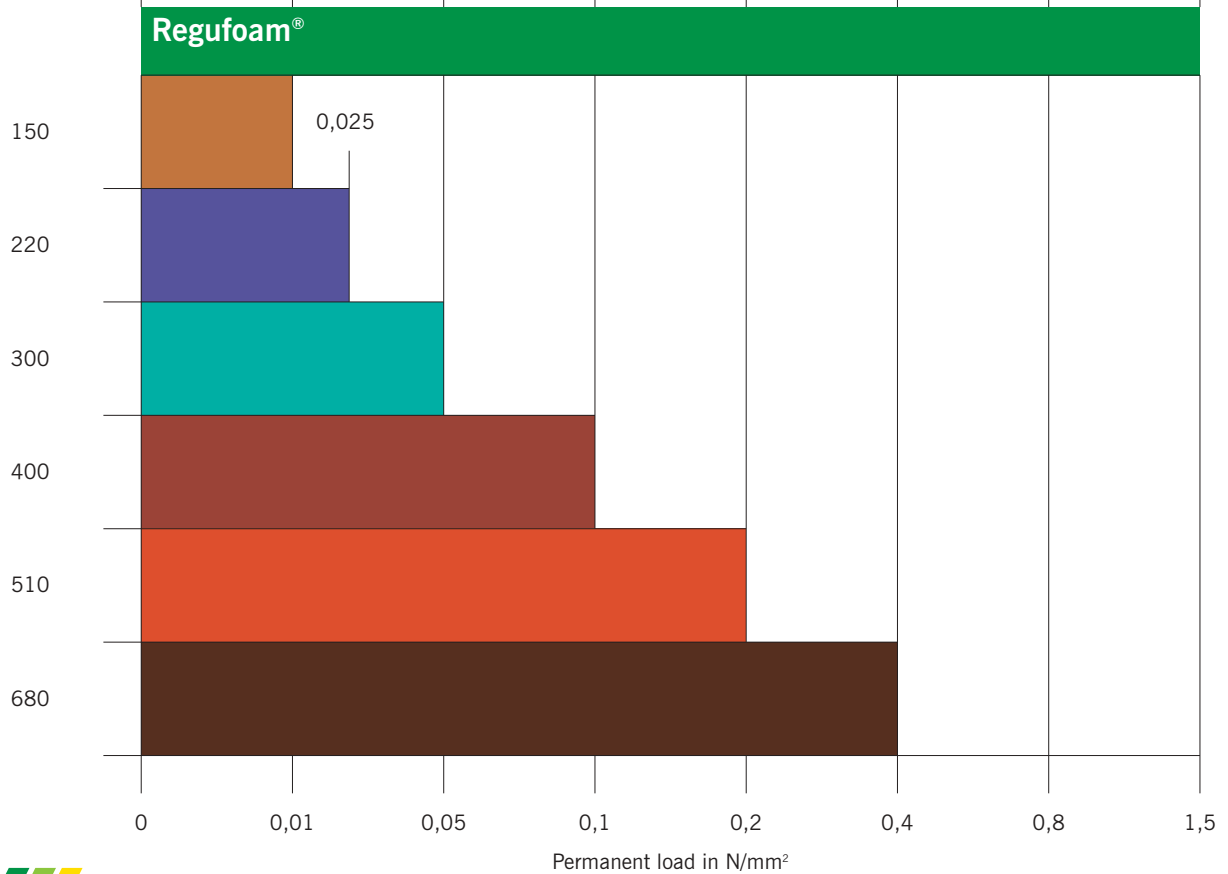
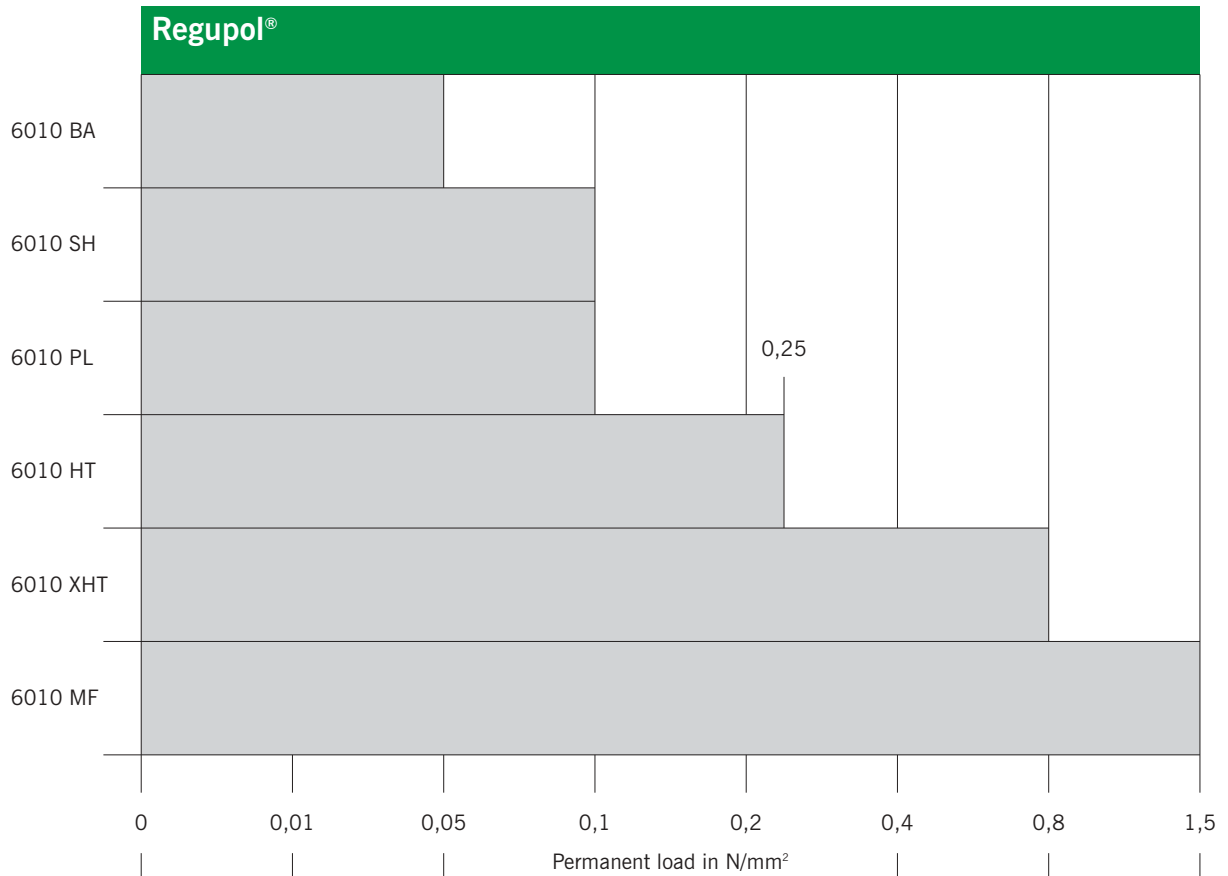
Regupol® and Regufoam® can also be laid under floor slabs which must withstand the strain exerted by heavy vehicles. We recommend concrete industrial floors with a minimum thickness of 10 cm and the appropriate upper and lower reinforcement layers.



12 cm industrial floor with the appropriate reinforcement and surface sealant.



Load Ranges



BSW

BSW

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