

CONSTRUCTION

Regupol®

Regupol BA

Heavy duty
screed isolation
Regupol BA

Excellent impact performance



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CONSTRUCTION

Regupol BA



The properties



Product photograph Regupol BA, with the dimpled side up

Bedding modulus Regupol BA

Compressive stress (N/mm ²)	Settlement (mm)	Bedding modulus (N/mm ³)
0.0025	0	0
0.0098	1.4	0.007
0.0196	2.6	0.008
0.0343	3.9	0.009
0.0490	4.7	0.010
0.0196	3.2	0.006

Test procedure and analysis to DIN 18134
Sample dimensions and test equipment to DIN EN 826
Testing carried out by the Technical University of Dresden (TU Dresden)

Regupol BA heavy duty screed isolation

Offers long term performance, with minimal creep, and is resistant to ageing and deformation.

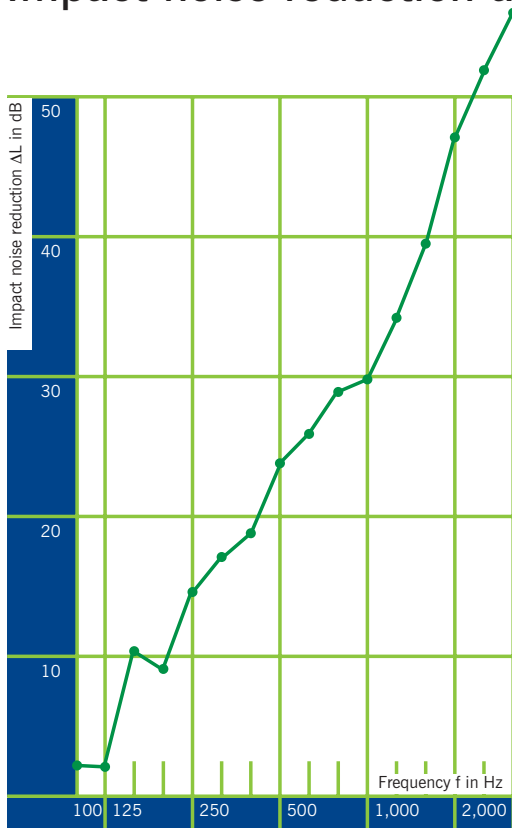
Material	PU bound rubber fibres
Supplied in	rolls
Dimensions	10,000 x 1,250 x 8/17 mm
Temperature resistance	from -20 °C to +80 °C
Colour	anthracite

Technical data

Weighted reduction in impact sound according to DIN 52210-3	$\Delta L_{WP} = 26$ dB
Calculation value for DIN 4109/8	$\Delta L_{WR} = 24$ dB
Mean of dynamic stiffness to DIN EN 29052-1	$s' = 18$ MN/m ³
Thermal conductivity	0.14 W/mK
Flammability to DIN 4102	B 2
Maximum load bearing	5,000 kg/m ²



Impact noise reduction according to DIN 52210-3



Frequency Hz	L_n , base floor 1/3 octave dB	ΔL 1/3 octave dB
100	57.5	2.2
125	60.3	2.1
160	60.7	10.1
200	61.6	9.1
250	61.5	14.6
315	63.8	17.1
400	62.1	18.8
500	63.3	23.8
630	63.3	25.9
800	64.4	28.9
1,000	65.6	29.8
1,250	66.4	34.2
1,600	66.7	39.5
2,000	66.7	47.1
2,500	66.6	51.9
3,150	67.2	56.0



Qualification test I
for DIN 4109
on 05.05.1999

Publication of the results is
authorised by the
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We would be pleased to send
you the complete test report
No. 0070.99-P 57 on request.

Measurement of the reduction in impact noise, provided by a floor covering on a solid standard floor under test conditions.

Description of the test object:

- 28 mm cast stone
- approx. 4 mm thin-set mortar
- approx. 90 mm concrete screed
- 0.25 mm PE foil
- 8/17 mm Regupol BA heavy duty screed isolation, single layer
- Average value of dynamic stiffness as per DIN EN 29 052-1, $s' = 18 \text{ MN/m}^3$
- Length-related flow resistance as per DIN EN 29053: $r = 8088 \text{ Pa s/m}^2$
- 150 mm reinforced concrete
- Perimeter strip made of mineral fibreboard, 15 mm thick
- Mass per unit area of the floor covering 240 kg/m^2

Mass per unit area: 600 kg/m^2

Test surface area: $16,9 \text{ m}^2$

Test rooms: volume reception room $V_e = 51,3 \text{ m}^3$

Condition: empty

Type: laboratory

Impact noise reduction improvement as per DIN 52210

$\Delta L_{w,P} = 26 \text{ dB}$ $C_{l,\Delta} = -13 \text{ dB}$ $\Delta L_{lin} = 13 \text{ dB}$

The results refer only to the tested structure.

Calculation value for DIN 4109/89: $\Delta L_{w,R} = 24 \text{ dB}$



Installation guidelines

It is important that the base floor is **clean** (free from loose dirt and concrete dust), **flat** (within building standards ± 5 mm) and **dry**.

When the product is rolled up it stretches slightly. Unwind each roll where it is to be installed and leave it for a few hours before measuring and/or cutting to length.

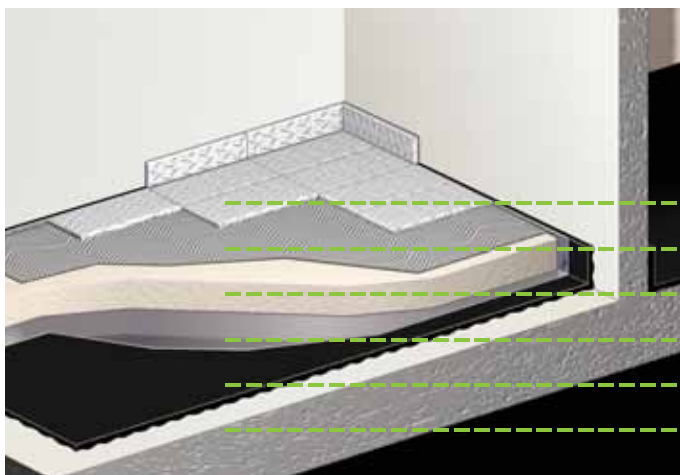
The Regupol BA perimeter strips (or perimeter strips made from polyethylene foam or mineral fiber), with the dimpled

face of the material butted against the perimeter walls. These strips can be cut to the required width on site using a sharp utility knife and straight edge. The perimeter strips should be at least 10 mm above the level of the finished screed. Excess material to be trimmed after the screed has set.

The Regupol BA must then be laid dimpled side down. Use a sharp utility knife and straight edge for cutting to size. Butt joints to be taped down using double-sided hi-tack tape.

A 0.2 mm (minimum thickness) waterproof membrane (e.g. Visqueen) is laid over the entire area with all joints to be overlapped by at least 10 cm! This foil must also cover the upturned edges of the Regupol BA. All joints must be taped to prevent movement during the casting process.

The screed can now be cast taking the usual precautions to avoid damaging or moving the membrane and the Regupol BA.



Tiles

Tile adhesive

Screed

PE foil

Regupol BA

Concrete floor

Heavy duty screed isolation tested in compliance with building regulations

Designed to reduce impact from very high loads

Regupol BA has a multitude of uses. In most cases it is used to isolate floor screeds in new build constructions such as luxury apartments, schools, hospitals, hotels, libraries, retail units and supermarkets. It can also be used beneath wooden based floors and areas of sensitivity such as gymnasium floors.

Regupol BA has been independently tested by UKAS accredited and ITA laboratories to show compliance with the new building regulations in Europe and overseas. The product has a maximum load bearing capacity of 50 KN/m². Regupol BA offers long term performance without collapsing or “bottoming” out

under high point loads, with minimal creep. There is no loss of thickness under high static and/or dynamic loads – dimensional stability and uniform material thickness are guaranteed. Installing Regupol BA means that the floor screed remains stable, with no loss of thickness.

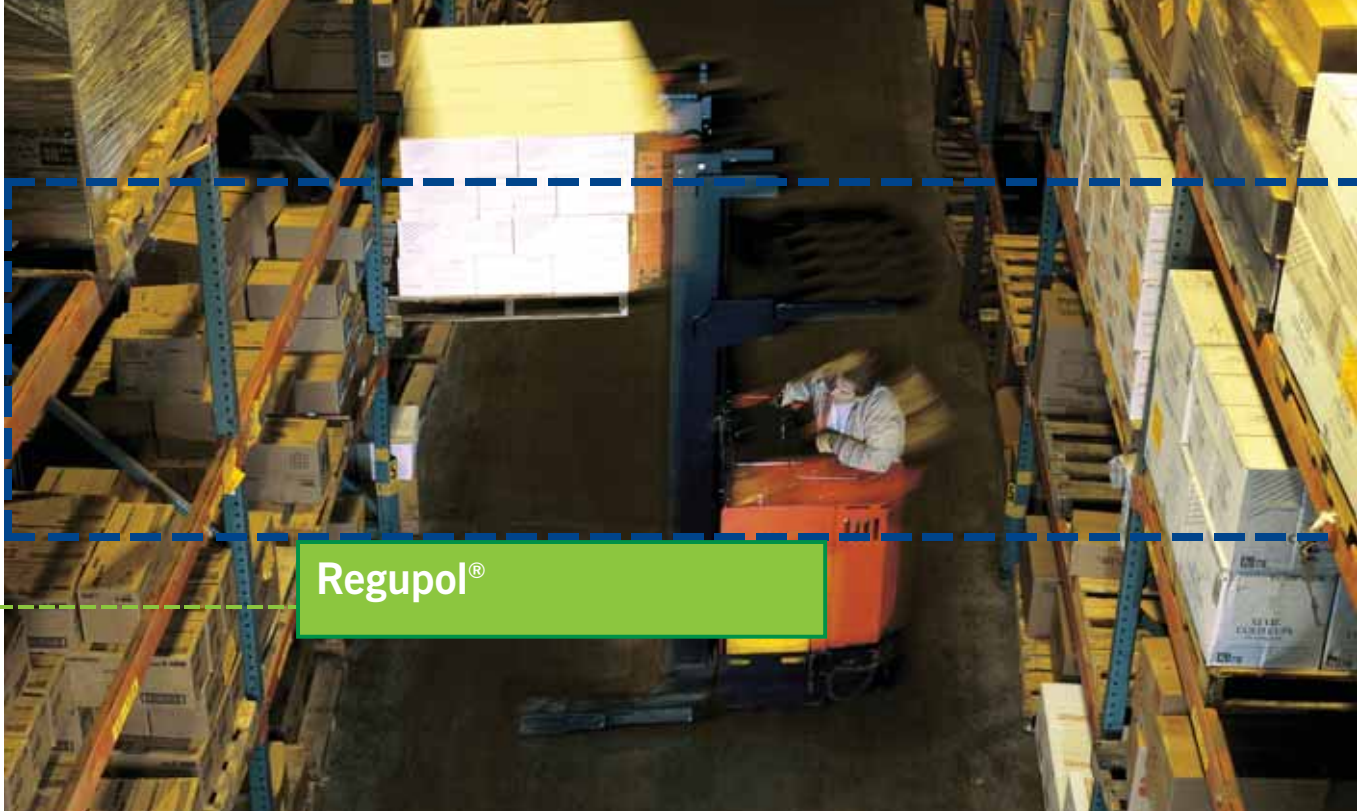
The benefits

- excellent isolation properties
- no loss of thickness even under high static and/or dynamic loads
- suitable for vibrating floor systems
- permanently elastic under high point loads
- protects expansion joints
- suitable for use with underfloor heating
- quick and easy to install
- high quality and uniform material thickness guaranteed
- minimal creep, even under high loads
- mildew and moisture proof

Typical applications

Under high-loads beneath cast concrete slabs, sand cement screeds or proprietary screeds

- hospitals
- supermarkets
- hotels
- lobbies & foyers
- libraries
- school & universities
- luxury apartments
- retail units



Regupol®



BSW has a very wide and diverse range of products which are primarily used for the construction and sports industry. Regupol® is manufactured using rubber and polyurethane. The rubber is made in BSW's production facilities according to the special requirements based on various different formulations.

Regupol® products are versatile, durable, capable of taking high loads and completely recyclable. Regupol® products can be manufactured, packaged and stored to specific requirements for fast, customised problem solutions.

New products in the BSW product range: Regufoam®

Regufoam® products offer excellent structural insulation from structure borne noise and vibrations. The material is manufactured from polyurethane foam and is produced with six different densities, each in a different colour to prevent any confusion. The various types are selected according to the load requirements and are available in standard thicknesses from 12 to 25 mm and corresponding combinations. Regufoam® has extremely low natural frequencies in the corresponding load ranges, resulting in excellent noise insulation values.

Another essential advantage of this insulation material is its relatively low compression levels and excellent recovery properties. Regufoam® offers a wide range of possible applications. The material can be used wherever high levels of insulation are required to reduce structure borne noise and vibration levels. This includes structural engineering, civil engineering and track construction, as well as mechanical engineering and shipbuilding.

The standard delivery form is in rolls, with stampings, water jet cuttings or moulded foamed products also possible.

Advice and sales world-wide through:
 Germany BSW GmbH
 Australia Regupol Australia Pty. Ltd.
 USA Regupol America LLC

www.berleburger.de

You can find more information about our products on our website, where you can also order product samples on-line. The website also provides the contact details of your local BSW adviser.



Certified according to
 DIN EN ISO 9001
 DIN EN ISO 14001
 OHSAS 18001

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Manufactured in accordance with highest industrial safety and environmental standards. Award winning manufacturing process.