

**Structure-borne sound insulation  
and impact sound reduction**



**ISOPOL<sup>®</sup> rubber granulate mats**

**5000**

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Front cover image:  
 Secli Weinwelt AG, Buchs SG.  
 Screed insulation with ISOPOL®-mats of a vine distributor.

## ISOPOL® rubber granulate mats

High-quality rubber granulate mats for structure-borne sound insulation and impact sound reduction

### ISOPOL® a range grown on experience and knowledge

HBT-ISOL has been using its high-quality ISOPOL® elastomer granulate mats for structure-borne sound insulation bearing systems in construction and industry since the 90's. The acoustic properties of the bearing system are determined by means of sound and vibration measurements on completed objects. At the same time, HBT-ISOL continuously analyses and compares various materials and systems in its own acoustics laboratory under near-building but standardised conditions. These on-site measurements and laboratory analyses continually provide new findings and knowledge that are incorporated into further developments of the ISOPOL® range. In the recent past, the performance of ISOPOL® products have been increased in a targeted manner and the range has been supplemented with new ISOPOL® types and additional material thicknesses in line with demand.

The **new ISOPOL®-assortment** offers a technically reliable solution and an excellent cost/benefit ratio for all common areas of application with various sheet textures, insulation values, shapes and finely graduated load ranges. For impact sound and underscreed insulation, for low installation heights or small loads, we recommend our ISOFLOOR® range, which can be found in a separate brochure.

### Areas of application

The high-quality ISOPOL® mats are used for structure-borne sound insulation of

- Buildings in exposed locations (e.g. near railways or hydroelectric power stations)
- Buildings with mixed uses (e.g. residential & shopping, residential & production, schoolroom & gymnasiums)
- Machine foundations
- Lorry / Truck ramps
- Whirlpools and Spa's

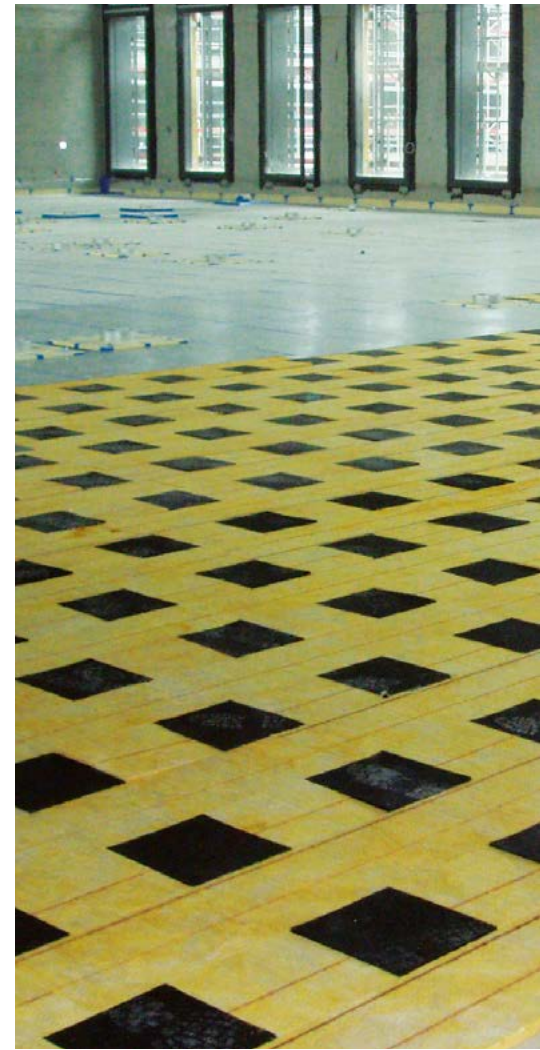
### Main benefits

ISOPOL®-mats are particularly suitable if a bearing has to achieve high insulation values at high loads.

### Features

- Excellent structure-borne sound insulation and impact sound reduction
- permanently elastic, rot-proof, extremely robust and durable in long-term use
- moisture resistant and partially self-draining
- low material creep and high resilience
- stable against weak acids and alkalis
- 100% recyclable

Product quality of a system selection and a professional installation are the key to optimum structure-borne sound insulation. Experienced HBT-ISOL engineers, project managers and our own installation teams support you in all project phases. From the evaluation, selection and dimensioning of the solution to faultless execution with a functional guarantee.

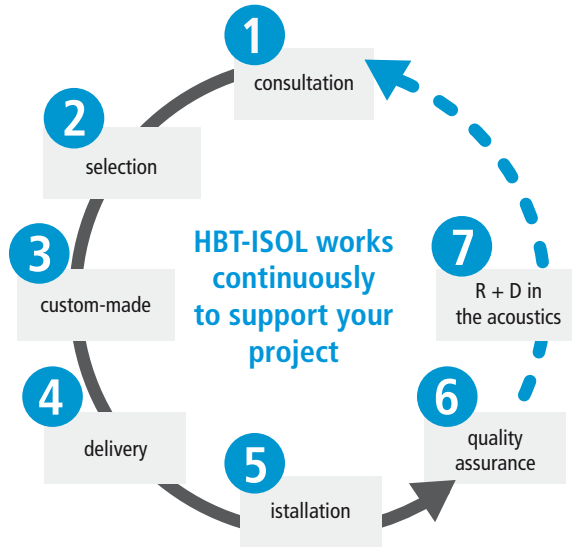


## HBT-ISOL services for you

The acoustic performance of a structure-borne sound insulation system is decisively determined by three factors:

- Performance of the products
- Correct system selection
- Faultless installation

Experienced HBT-ISOL employees assist in all project phases – from planning to installation – and ensure that the planned solutions deliver the required performance.



## Complete range - the right ISOPOL® type for every area of application

The range – a wide product range of ISOPOL® types of different sheet textures, thicknesses and finely graded load ranges.

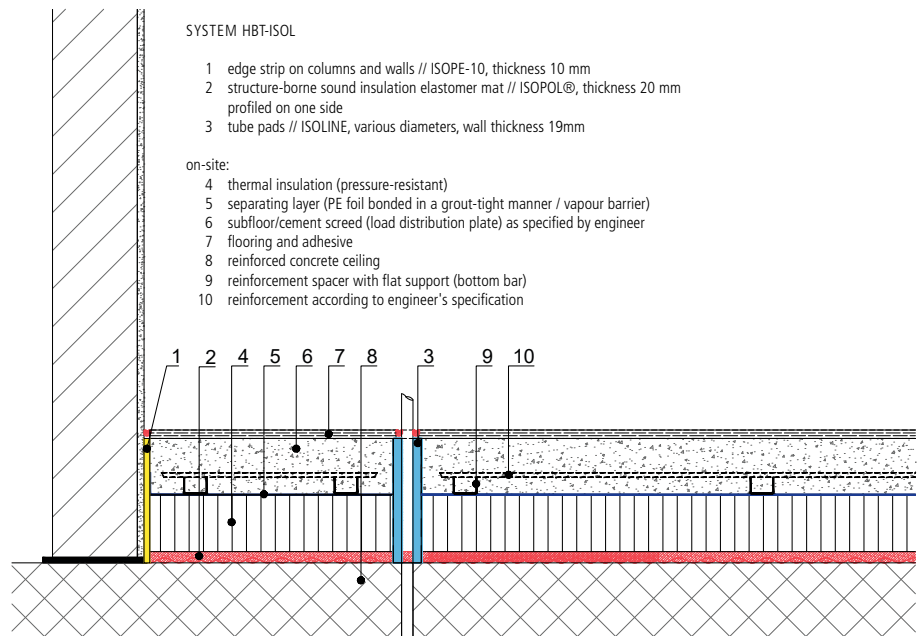


The two soft ISOPOL®-110-30-14-V and ISOPOL®-115-20-8-V with profiling on one side and geotextile lamination are particularly suitable for the structure-borne sound insulation of underlays and load distribution plates for mixed use buildings with medium loads.

The stiffer ISOPOL®-163, 260, 330 and 510 are used for structure-borne sound and impact sound reduction for higher loads such as e.g. load distribution plates, walls and columns.

## System

**Floor construction example of a structure-borne sound and impact sound reduction system with ISOPOL®**



## ISOPOL® rubber granulate mats: product range overview

ISOPOL®-type	impact noise reduction <sup>(1)</sup>	max. dyn. stiffness <sup>(2)</sup>	compression recommended upper limit at use level	thickness	surface
ISOPOL®-110-30-14-V	≥ 29 dB	≤ 11 MN/m <sup>3</sup>	30 kN/m <sup>2</sup> 0.03 N/mm <sup>2</sup>	30 mm	lower side profiled upper side flat*
ISOPOL®-115-20-8-V	≥ 26 dB	≤ 14 MN/m <sup>3</sup>	50 kN/m <sup>2</sup> 0.05 N/mm <sup>2</sup>	20 mm	lower side profiled upper side flat*
ISOPOL®-163-15-V	≥ 22 dB	≤ 63 MN/m <sup>3</sup>	100 kN/m <sup>2</sup> 0.10 N/mm <sup>2</sup>	15 mm	both sides flat*
ISOPOL®-163-20-V	≥ 25 dB	≤ 30 MN/m <sup>3</sup>	100 kN/m <sup>2</sup> 0.10 N/mm <sup>2</sup>	20 mm	both sides flat*
ISOPOL®-163-30-V	≥ 26 dB	≤ 27 MN/m <sup>3</sup>	100 kN/m <sup>2</sup> 0.10 N/mm <sup>2</sup>	30 mm	both sides flat*
ISOPOL®-163-50-V	≥ 28 dB	≤ 22 MN/m <sup>3</sup>	100 kN/m <sup>2</sup> 0.10 N/mm <sup>2</sup>	50 mm	both sides flat*
ISOPOL®-260-15	≥ 16 dB	–	280 kN/m <sup>2</sup> 0.28 N/mm <sup>2</sup>	15 mm	both sides flat
ISOPOL®-260-20	≥ 17 dB	≤ 73 MN/m <sup>3</sup>	300 kN/m <sup>2</sup> 0.30 N/mm <sup>2</sup>	20 mm	both sides flat
ISOPOL®-260-30	≥ 18 dB	–	320 kN/m <sup>2</sup> 0.32 N/mm <sup>2</sup>	30 mm	both sides flat
ISOPOL®-330-10	≥ 12 dB	–	800 kN/m <sup>2</sup> 0.80 N/mm <sup>2</sup>	10 mm	both sides flat
ISOPOL®-330-20	≥ 16 dB	–	850 kN/m <sup>2</sup> 0.85 N/mm <sup>2</sup>	20 mm	both sides flat
ISOPOL®-330-30	≥ 16 dB	–	900 kN/m <sup>2</sup> 0.90 N/mm <sup>2</sup>	30 mm	both sides flat
ISOPOL®-510-10	system <sup>(3)</sup>	–	2000 kN/m <sup>2</sup> 2.00 N/mm <sup>2</sup>	10 mm	both sides flat
ISOPOL®-510-20	system <sup>(3)</sup>	–	2250 kN/m <sup>2</sup> 2.25 N/mm <sup>2</sup>	20 mm	both sides flat
ISOPOL®-510-30	system <sup>(3)</sup>	–	2500 kN/m <sup>2</sup> 2.50 N/mm <sup>2</sup>	30 mm	both sides flat

<sup>(1)</sup> The values determined refer exclusively to the test setup in the acoustics laboratory:

240 mm thick concrete floor, ISOPOL® sheet, concrete slab 320 kg/m<sup>2</sup>, not glued, with surface correction (see below)

<sup>(2)</sup> Measurement according to DIN EN 29052-1

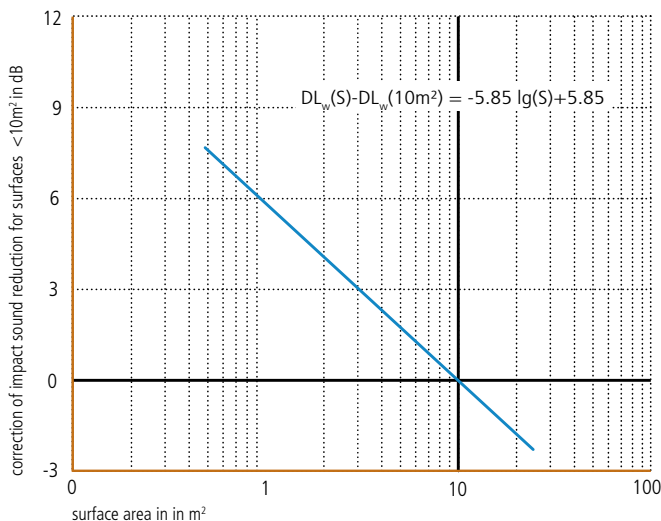
<sup>(3)</sup> In combination with other ISOPOL®-types

\* upper side with a geotextile laminated

### Change in impact sound reduction with reduction of screed area

The impact sound reduction  $\Delta L_w$  stated in the product range overview refers to a tested area of 10m<sup>2</sup>.

For areas < 10m<sup>2</sup> an improved impact sound reduction can be expected. For larger areas the impact sound reduction is somewhat lower.



source:

Erler, D.; Sprinz, D. & Hübelt, J.

Dependence of impact sound reduction of floating cement screeds on the size of the screed area (DAGA Deutsche Jahrestagung für Akustik, 2017, S. 485-488)

### Award

The AgBB provides a uniform, transparent and comprehensible health assessment of building product emissions.

Ask us which products meet the requirements for the AgBB label.



## ISOPOL® rubber granulate mats – execution examples

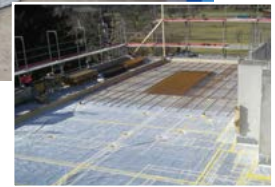
Migros, Rolle



### Living above a shopping centre

All residential units have been decoupled with ISOPOL® mats from structure borne-sound coming from the shopping centre on the ground floor.

La Torre, Haldenstein



### Living above a garage

The structure-borne sound insulating ISOPOL®-bearing between the garage ceiling and the floor slab of the residential units provides effective insulation against shocks and vibrations from the garage operation and workshop.



Swissmedic, Bern



### Research centre next to a railway

A research centre was planned next to a railway and required a damping system against vibrations from rail traffic. ISOPOL® was used to decouple the building from the railway.

Swisspor Arena, Luzern



### Gym and offices under one roof

A permanently elastic point bearing using ISOPOL® acoustically separates the gymnasium floor and the floor sleeves for the gymnastic equipment from the building structure and enables undisturbed school operations while sports are being played in the gymnasium at the same time.

## References

INDUSTRY / COMMERCE / LIVING			
Migros shopping centre	Herisau	building separation between two ceilings	2021
Migros shopping centre	Wittenbach	underscreed in shopping area	2020
GNG Garage	Gossau SG	underscreed in car repair shop	2020
Residential house	Erlenbach	underscreed with high load requirements	2020
Showroom watch industry	Le Locle	underscreed in high-quality showroom	2019
Pflegi Muri	Muri	underscreed in a laundry	2018
HANG-AAR	Aarau	underscreed in commercial mixed used	2018
Hetex-Areal	Niederlenz	underscreed in shopping area	2017
Shop	Zürich	underscreed in commercial mixed use	2016
Lidl shopping centre	Genf	underscreed in shopping area	2015
Increase in the height of an apartment	Crans-Montana	underscreed	2014
CAR LIFT			
Rebbergstrasse	Wettingen	bearing for a car lift in an apartment building	2020
Flüelerstrasse	Altdorf	bearing for a car lift in an apartment building	2019
Rebekastrasse	Küsnacht	bearing for a car lift in an apartment building	2018
POWER STATION			
La Serrière	Neuchatel	bearing for a pressure pipe	2016
MACHINE			
Realta JVA	Cazis	HVAC	2017
Bahnhof SBB	Basel	machine-bearing for kneading machine	2017
Hotel Valsana	Arosa	machine-bearing for washing mashines	2016
SWIMMING POOL / WHIRLPOOL/ KITCHENS			
EFH Reisch	Uerikon	swimming pool bearing	2017
Luegisland	Zufikon	whirlpool bearing	2017
Labitzkeareal	Zürich	decoupled front wall shells for kitchens	2017
Hürlimann Areal	Zürich	swimming pool bearing	2010
FITNESS			
Les Jardins du Couchant	Nyon	bearing underlay floor	2015
Fitnesspark	Zürich	bearing of a fitness centre	2014
ROAD AND RAIL TRANSPORT			
Bahnweg	Lausen	building-bearing to railway line	2020
Seetalstrasse 41	Kreuzlingen	crane runway-bearing	2018
Meret-Oppenheim	Basel	building-bearing to tram line	2017
Galgenbucktunnel	Neuhausen	tunnel bearing intermediate ceiling	2017
Helvetia Tower	Pratteln	vertical -bearing to railway line	2013
TCOB	Genf	mass-spring system of a tram line	2012
GYM / CLUB/ MUSIC STUDIO			
Club Kronenwiese	Zürich	bearing of a club	2016
Hochschule	Luzern	bearing recording studios	2015
Swisspor-Sportarena	Luzern	bearing double gymnasium floor	2011
Gym Shilpost	Zürich	bearing double gymnasium floor	2011

This list of references comprises only a selection of completed projects. Since the introduction of the ISOPOL® product line, these high-quality rubber granulate mats have been installed in several thousand projects.

## ISOPOL® rubber fine-grained mats 110-30-14-V

High-quality rubber fine-grained mats for structure-borne sound insulation and impact sound reduction

### MATERIAL

ISOPOL®-110-30-14-V rubber fine-grained mats are made from recycled rubber. For this purpose, technically high-quality rubber grains are pressed and a geotextile is laminated with the addition of a PU binding agent.



### APPLICATION AREA

ISOPOL®-110-30-14-V rubber fine-grained mats are used for structure-borne sound and impact sound reduction in separation of buildings, parts of buildings (e.g. underlays/load distribution plates for mixed residential/commercial uses) and machine foundations. ISOPOL® mats meet the highest demands and are particularly suitable if a bearing is to achieve high insulation values at medium loads or if exact loads cannot be determined.

### FEATURES

- 100% recyclable	- low creep behaviour	- extremely robust and durable
- permanently elastic and rot-proof	- high resilience	
- high homogeneity	- stable against weak acids and alkalis	
- moisture resistant	- with geotextile lamination	

### PRODUCT-/LOGISTICS DATA

colour	black
form	sheet, lower side profiled, upper side flat, with a geotextile-laminated
thickness	30 ± 1 mm
length x width	1'000 x 500 mm
weight per surface	ca. 10.3 kg/m <sup>2</sup>
warehousing	store in a dry place, do not expose to direct sunlight
storage period	with correct storage almost unrestricted

### TECHNICAL DATA

impact sound reduction	≥ 29 dB <sup>(1)</sup>
compression	0.03 N/mm <sup>2</sup> , 30 kN/m <sup>2</sup> (recommended upper limit at use level)
dynamic stiffness	≤ 11 MN/m <sup>3</sup> , measurement according to DIN EN 29052-1
compression	10% at ca. 0.013 N/mm <sup>2</sup> , 20% at ca. 0.037 N/mm <sup>2</sup>
fire reaction class	E <sub>fl</sub> (according to EN 13501-1)
temperature resistance	long-term: - 40°C to + 80°C, short-term: to + 110°C
thermal conductivity	0.1 W/mK

### PROCESSING

ground / subfloor	Direct contact of ISOPOL® mats with materials containing plasticisers must be avoided (use separating layer). Requirements of bearing surface: Load-bearing capacity > 0.25 N/mm <sup>2</sup> No loose components. Free of excess teeth and gravel pockets. Flatness under 2 m lath ≤ 10 mm, at > 10 mm reprofile. Broom clean. (Standard SIA-271:2007)
installation	The ISOPOL® mats are laid loosely with the profile to the bottom, the joints are butt-jointed. Before concreting work, the ISOPOL® mats are protected with 2 layers of tough PE film (0.2 mm) and glued so that they are watertight.
overlying component	Concrete or subfloors with flowable consistency as well as aerated concrete require additional, special sealing measures. Our technicians will be happy to help you.
processing instructions	The installation of ISOPOL® mats should only be carried out by trained personnel. When using auxiliary products, such as adhesives, the ambient temperature and humidity must meet the requirements of the auxiliary products used. The corresponding product data mats must be considered.

### SAFETY / HEALTH

safety notice	Local safety requirements must be considered.
transport class	ISOPOL® mats are not classified as hazardous substances in the sense of the ADR.
disposal	ISOPOL® mats are recyclable. Waste code according to European Waste Catalogue Regulation: 19 12 04. Local requirements regarding disposal must be considered.

<sup>(1)</sup> The values determined refer exclusively to the test setup in the acoustics laboratory: 240 mm thick concrete ceiling, ISOPOL® mats, concrete slab 300 kg/m<sup>2</sup>, not glued, with surface correction.

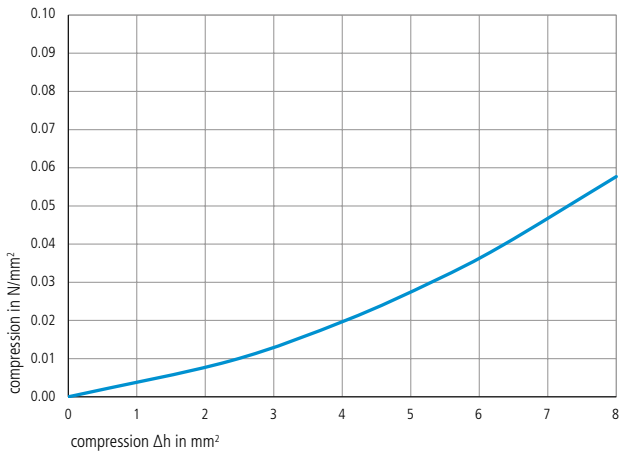


## ISOPOL® rubber fine-grained mats 110-30-14-V

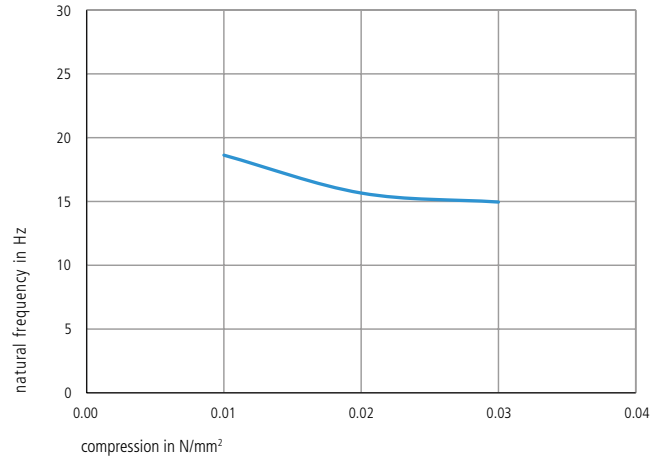
High-quality rubber fine-grained mats for structure-borne sound insulation and impact sound reduction

Material properties: Determined by Müller-BBM, on behalf of HBT-ISOL (mean value from 5 samples, according to DIN 10846, Report: M147132/03)

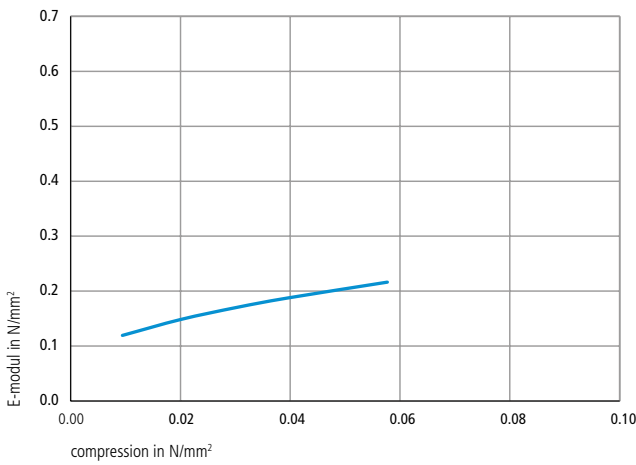
### compression



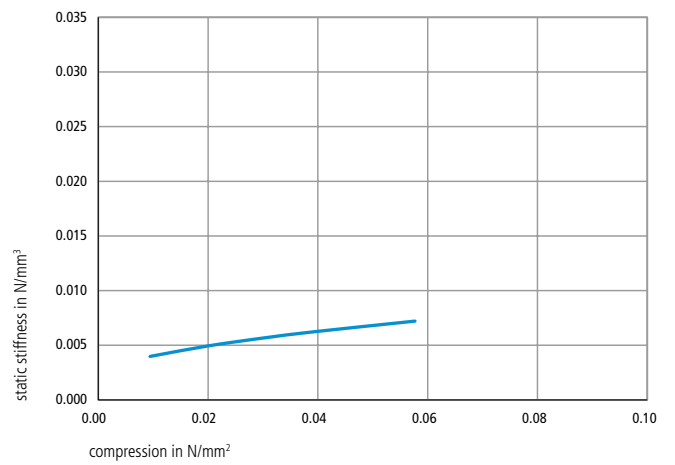
### natural frequency <sup>(2)</sup>



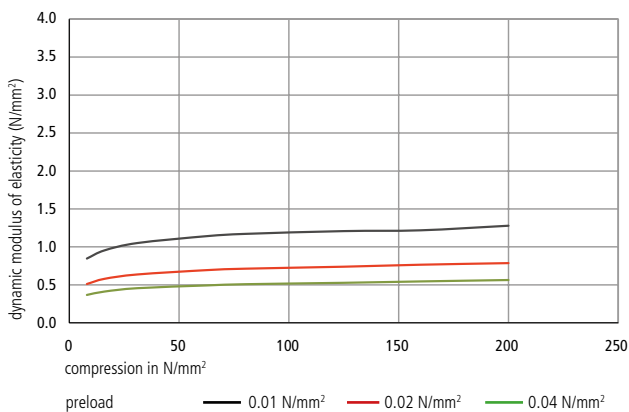
### static modulus of elasticity



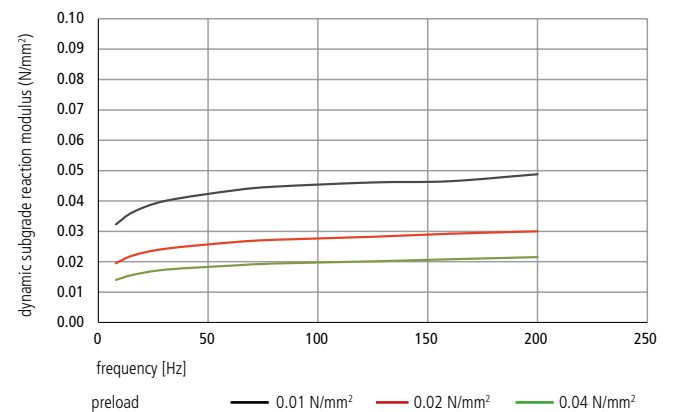
### static stiffness



### dynamic modulus of elasticity



### dynamic stiffness



<sup>(2)</sup> calculated values

## ISOPOL® rubber fine-grained mats 115-20-8-V

High-quality rubber fine-grained mats for structure-borne sound insulation and impact sound reduction

### MATERIAL

ISOPOL®-115-20-8-V rubber fine-grained mats are made from recycled rubber fine-grained. For this purpose, technically high-quality rubber grains are pressed and a geotextile is laminated with the addition of a PU binding agent.



### APPLICATION AREA

ISOPOL®-115-20-8-V fine-grained mats are used for structure-borne sound and impact sound reduction and separation of buildings, parts of buildings (e.g. underlays/load distribution plates for mixed residential/commercial uses) and machine foundations. ISOPOL® mats meet the highest demands and are particularly suitable if a bearing is to achieve high insulation values at medium loads or if exact loads cannot be determined.

### FEATURES

- 100% recyclable	- low creep behaviour	- extremely robust and durable
- permanently elastic and rot-proof	- high resilience	
- high homogeneity	- stable against weak acids and alkalis	
- moisture resistant	- with geotextile lamination	

### PRODUCT-/LOGISTICS DATA

colour	black
form	mats, lower side profiled, upper side flat with a geotextile-laminated
thickness	20 ± 1 mm
length x width	1'000 x 500 mm
weight per surface	ca. 8.2 kg/m <sup>2</sup>
warehousing	store in a dry place, do not expose to direct sunlight
storage period	with correct storage almost unrestricted

### TECHNICAL DATA

impact sound reduction	≥ 26 dB <sup>(1)</sup>
compression	0.05 N/mm <sup>2</sup> , 50 kN/m <sup>2</sup> (recommended upper limit at use level)
dynamic stiffness	≤ 14 MN/m <sup>3</sup> , measurement according to DIN EN 29052-1
compression	10% at ca. 0.01 N/mm <sup>2</sup> , 20% at ca. 0.033 N/mm <sup>2</sup>
fire reaction class	E <sub>fl</sub> (according to EN 13501-1)
temperature resistance	long-term: - 40°C to + 80°C, short-term: to+ 110°C
thermal conductivity	0.08 W/mK

### PROCESSING

ground / subfloor	Direct contact of ISOPOL® mats with materials containing plasticisers must be avoided (use separating layer). Requirements of bearing surface: Load-bearing capacity > 0.5 N/mm <sup>2</sup> No loose components. Free of excess teeth and gravel pockets. Flatness under 2 m lath ≤ 10 mm, at > 10 mm reprofile. Broom clean. (Norm SIA-271:2007)
installation	The ISOPOL® mats are laid loosely with the profile to the bottom, the joints are butt-jointed. Before concreting work, the ISOPOL® mats are protected with 2 layers of tough PE film (0.2 mm) and glued so that they are watertight.
overlying component	Concrete or subfloors with a flowable consistency as well as aerated concrete are only suitable to a limited extent and require additional, special sealing measures. Our technicians will be happy to help you.
processing notice	The installation of ISOPOL® mats should only be carried out by trained personnel. When using auxiliary products, such as adhesives, the ambient temperature and humidity must meet the requirements of the auxiliary products used. The corresponding product data mats must be considered.

### SAFETY / HEALTH

safety notice	Local safety requirements must be considered.
transport class	ISOPOL® mats are not classified as hazardous substances in the sense of the ADR.
disposal	ISOPOL® mats are recyclable. Waste code according to European Waste Catalogue Regulation: 19 12 04. Local requirements regarding disposal must be considered.

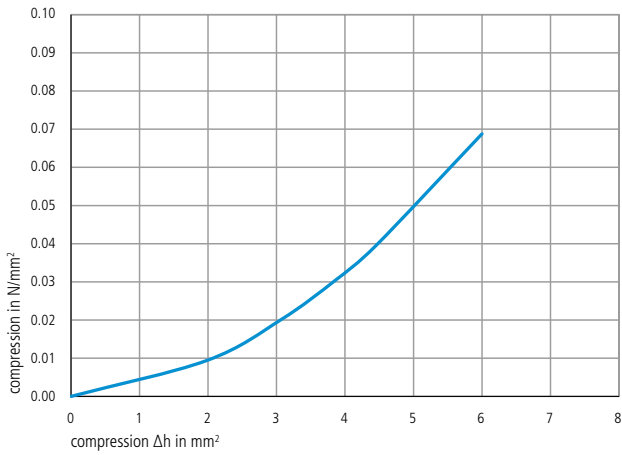
<sup>(1)</sup> The values determined refer exclusively to the test setup in the acoustics laboratory: 240 mm thick concrete ceiling, ISOPOL® mats, concrete slab 300 kg/m<sup>2</sup>, not glued, with surface correction.

## ISOPOL® rubber fine-grained mats 115-20-8-V

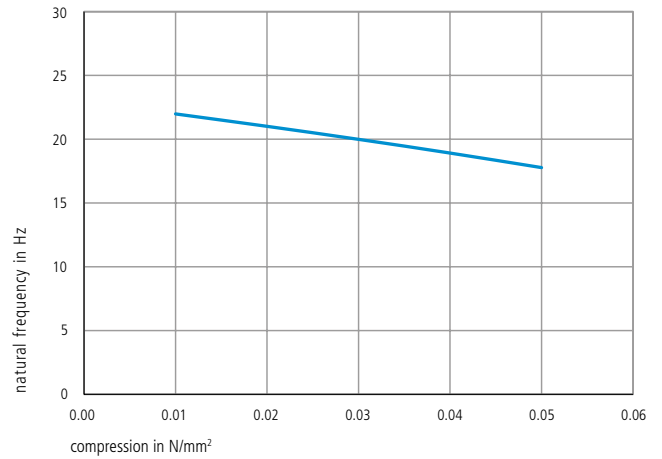
High-quality rubber fine-grained mats for structure-borne sound insulation and impact sound reduction

Material properties: Determined by Müller-BBM, on behalf of HBT-ISOL (mean value from 5 samples, according to DIN 10846, Report: M147132/03)

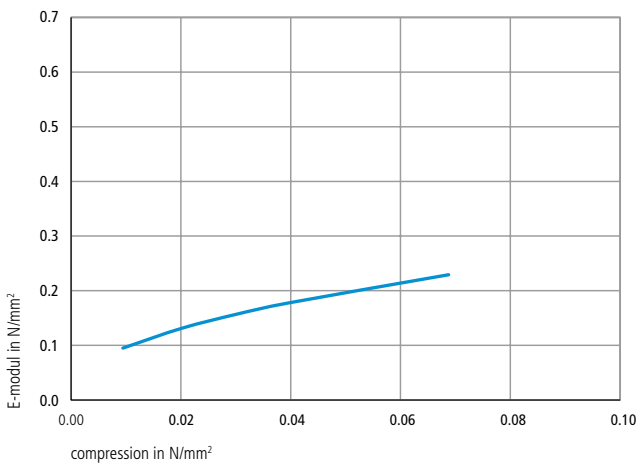
### compression



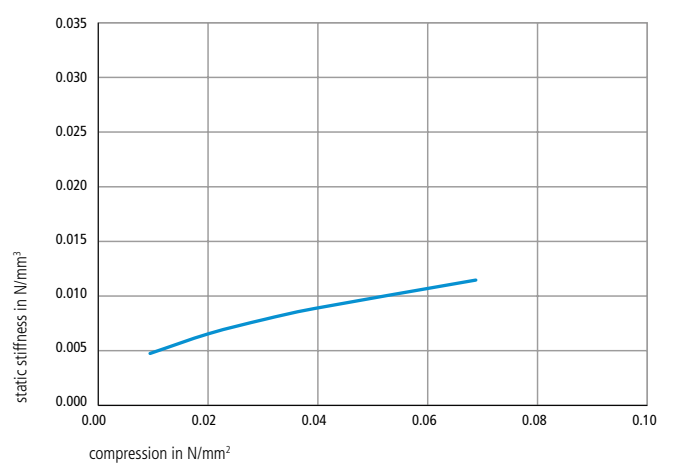
### natural frequency <sup>(2)</sup>



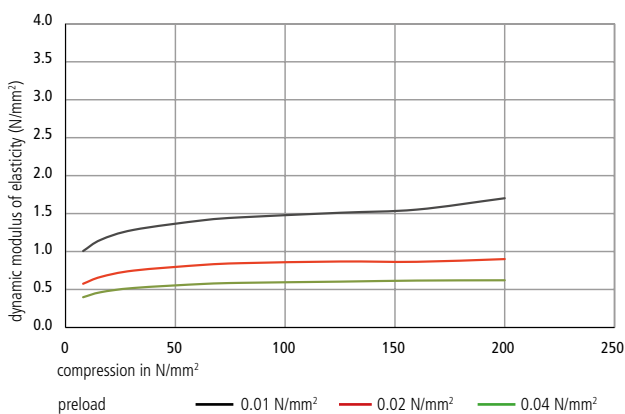
### static modulus of elasticity



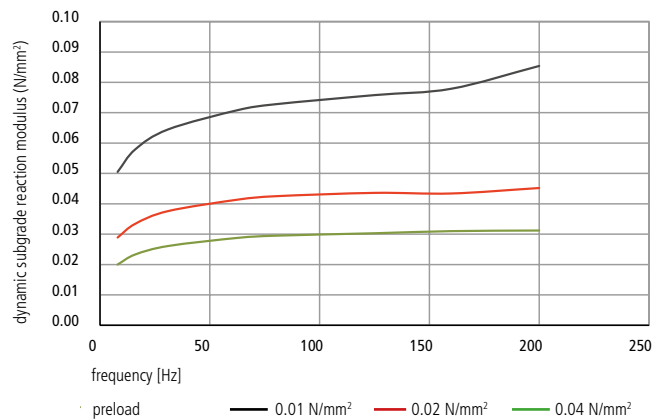
### static stiffness



### dynamic modulus of elasticity



### dynamic stiffness



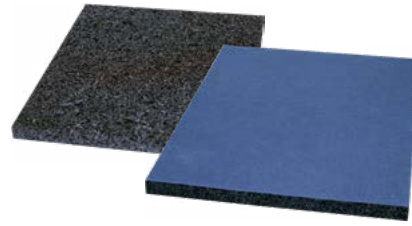
<sup>(2)</sup> calculated values

## ISOPOL® rubber granulate mats 163-15-V

High-quality rubber granulate mats for structure-borne sound insulation and impact sound reduction

### MATERIAL

ISOPOL®-163-15-V rubber granulate mats are made from recycled rubber. For this purpose, technically high-quality rubber granuels and fibres are pressed and a geotextile is laminated with the addition of a PU binding agent.



### APPLICATION AREA

ISOPOL®-163-15-V rubber granulate mats are used for structure-borne sound and impact sound reduction in separation of buildings, parts of buildings (e.g. underlays/load distribution plates for mixed residential/commercial uses) and machine foundations. ISOPOL® mats meet the highest demands and are particularly suitable if a bearing is to achieve high insulation values at medium loads or if exact loads cannot be determined.

### FEATURES

- 100% recyclable	- self-draining at vertical use	- with geotextile lamination
- permanently elastic and rot-proof	- low creep behaviour	- extremely robust and durable
- high homogeneity	- high resilience	
- moisture resistant	- stable against weak acids and alkalis	

### PRODUCT-/LOGISTICS DATA

colour	black
form	mats, both sides flat
thickness	15 ± 1 mm
length x width	1'200 x 500 mm
weight per surface	ca. 7.0 kg/m <sup>2</sup>
warehousing	store in a dry place, do not expose to direct sunlight
storage period	with correct storage almost unrestricted

### TECHNICAL DATA

impact sound reduction	≥ 22 dB <sup>(1)</sup>
compression	0.1 N/mm <sup>2</sup> , 100 kN/m <sup>2</sup> (recommended upper limit at use level)
dynamic stiffness	≤ 63 MN/m <sup>3</sup> , measurement according to DIN EN 29052-1
compression	10% at ca. 0.035 N/mm <sup>2</sup> , 20% at ca. 0.09 N/mm <sup>2</sup>
fire reaction class	E <sub>fl</sub> (according to EN 13501-1)
temperature resistance	long-term: - 40°C to + 80°C, short-term: to + 110°C
thermal conductivity	0.08 W/mK

### PROCESSING

ground / subfloor	Direct contact of ISOPOL® mats with materials containing plasticisers must be avoided (use separating layer). Requirements of bearing surface: Load-bearing capacity > compression der ISOPOL®-mats. No loose components. Free of excess teeth and gravel pockets. Flatness under 2 m lath ≤ 10 mm, at > 10 mm reprofile. Broom clean. (Norm SIA-271:2007)
installation	The ISOPOL®-mats are laid loosely, the joints are butt-jointed. Before concreting work, the ISOPOL®-mats are protected with 2 layers of tough PE film (0.2 mm) and glued so that they are watertight.
superstructure	Concrete or subfloors with a flowable consistency as well as aerated concrete are only suitable to a limited extent and require additional, special sealing measures
processing instructions	The installation of ISOPOL® mats should only be carried out by trained personnel. When using auxiliary products, such as adhesives, the ambient temperature and humidity must meet the requirements of the auxiliary products used. The corresponding product data mats must be considered.

### SAFETY / HEALTH

safety notice	Local safety requirements must be considered.
transport class	ISOPOL® mats are not classified as hazardous substances in the sense of the ADR.
disposal	ISOPOL® mats are recyclable. Waste code according to European Waste Catalogue Regulation: 19 12 04. Local requirements regarding disposal must be considered.

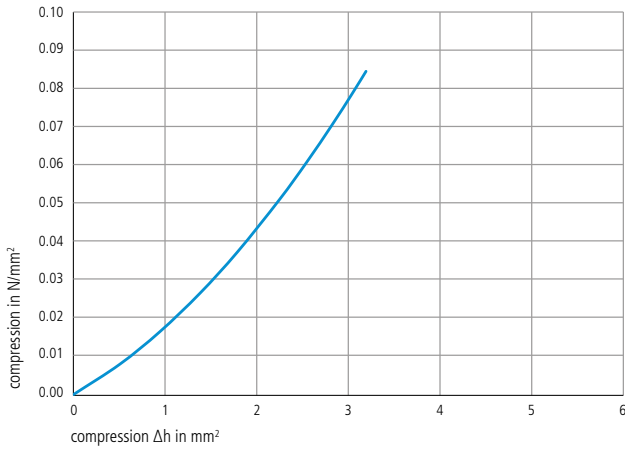
<sup>(1)</sup> The values determined refer exclusively to the test setup in the acoustics laboratory: 240 mm thick concrete ceiling, ISOPOL® mats, concrete slab 300 kg/m<sup>2</sup>, not glued, with surface correction.

## ISOPOL® rubber granulate mats 163-15-V

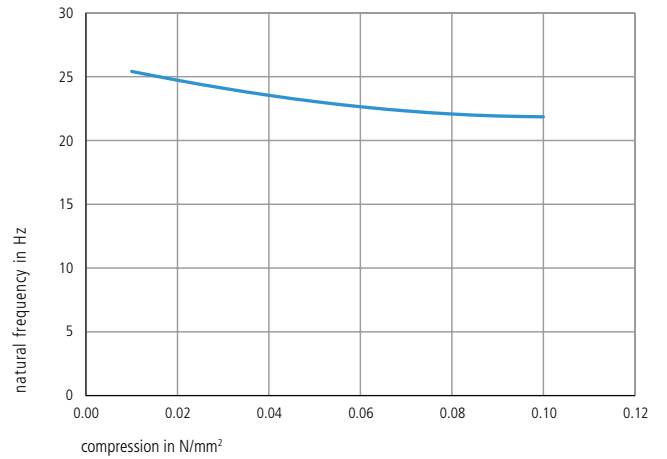
High-quality rubber granulate mats for structure-borne sound insulation and impact sound reduction

Material properties: Determined by Müller-BBM, on behalf of HBT-ISOL (mean value from 5 samples, according to DIN 10846, Report: M147132/02)

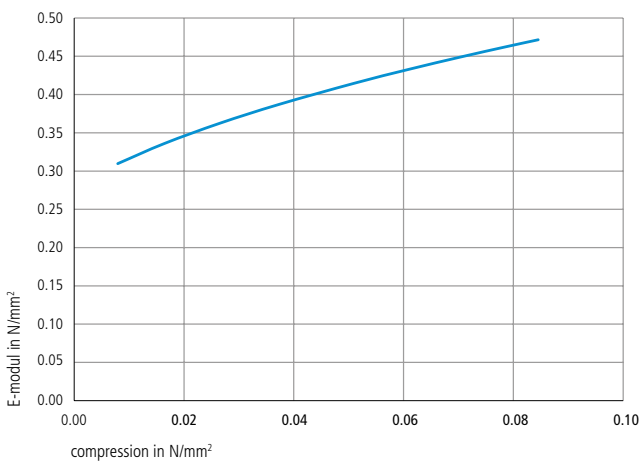
**compression**



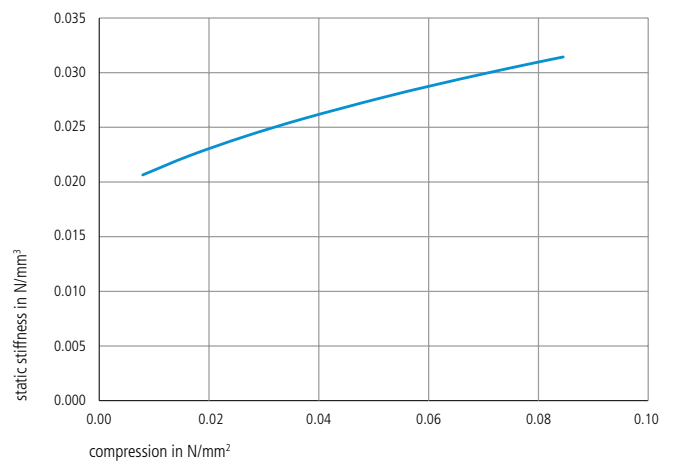
**natural frequency <sup>(2)</sup>**



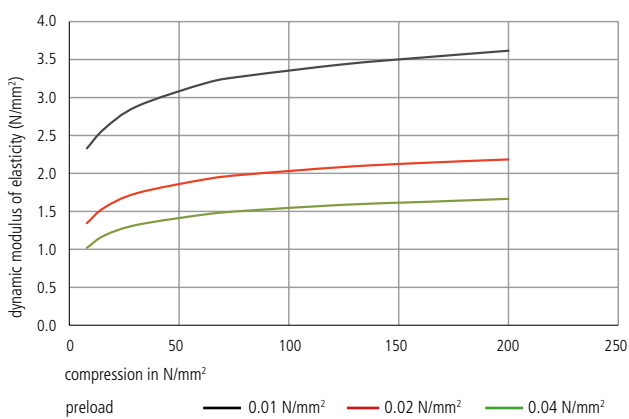
**static modulus of elasticity**



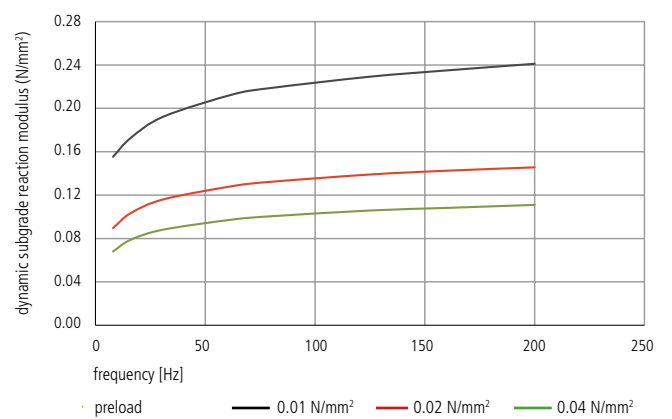
**static stiffness**



**dynamic modulus of elasticity**



**dynamic stiffness**



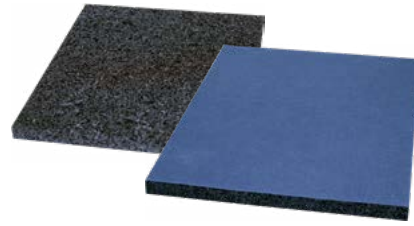
<sup>(2)</sup> calculated values

## ISOPOL® rubber granulate mats 163-20-V

High-quality rubber granulate mats for structure-borne sound insulation and impact sound reduction

### MATERIAL

ISOPOL®-163-20-V rubber granulate mats are made from recycled rubber. For this purpose, technically high-quality rubber grains are pressed and a geotextile is laminated with the addition of a PU binding agent.



### APPLICATION AREA

ISOPOL®-163-20-V rubber granulate mats are used for structure-borne sound and impact sound reduction in separation of buildings, parts of buildings (e.g. underlays/load distribution plates for mixed residential/commercial uses) and machine foundations. ISOPOL® mats meet the highest demands and are particularly suitable if a bearing is to achieve high insulation values at medium loads or if exact loads cannot be determined.

### FEATURES

- 100% recyclable	- self-draining at vertical use	- with geotextile lamination
- permanently elastic and rot-proof	- low creep behaviour	- extremely robust and durable
- high homogeneity	- high resilience	
- moisture resistant	- stable against weak acids and alkalis	

### PRODUCT-/LOGISTICS DATA

colour	black
form	mats, both sides flat
thickness	20 ± 1 mm
length x width	1'200 x 500 mm
weight per surface	ca. 9.0 kg/m <sup>2</sup>
warehousing	store in a dry place, do not expose to direct sunlight
storage period	with correct storage almost unrestricted

### TECHNICAL DATA

impact sound reduction	≥ 25 dB <sup>(1)</sup>
compression	0.1 N/mm <sup>2</sup> , 100 kN/m <sup>2</sup> (recommended upper limit at use level)
dynamic stiffness	≤ 30 MN/m <sup>3</sup> , measurement according to DIN EN 29052-1
compression	10% at ca. 0.026 N/mm <sup>2</sup> , 20% at ca. 0.07 N/mm <sup>2</sup>
fire reaction class	E <sub>fl</sub> (according to EN 13501-1)
temperature resistance	long-term: - 40°C to + 80°C, short-term: to + 110°C
thermal conductivity	0.08 W/mK

### PROCESSING

ground / subfloor	Direct contact of ISOPOL® mats with materials containing plasticisers must be avoided (use separating layer). Requirements of bearing surface: Load-bearing capacity > compression der ISOPOL®-mats. No loose components. Free of excess teeth and gravel pockets. Flatness under 2 m lath ≤ 10 mm, at > 10 mm reprofile. Broom clean. (Norm SIA-271:2007)
installation	The ISOPOL®-mats are laid loosely, the joints are butt-jointed. Before concreting work, the ISOPOL®-mats are protected with 2 layers of tough PE film (0.2 mm) and glued so that they are watertight.
superstructure	Concrete or subfloors with a flowable consistency as well as aerated concrete are only suitable to a limited extent and require additional, special sealing measures
processing instructions	The installation of ISOPOL® mats should only be carried out by trained personnel. When using auxiliary products, such as adhesives, the ambient temperature and humidity must meet the requirements of the auxiliary products used. The corresponding product data mats must be considered.

### SAFETY / HEALTH

safety notice	Local safety requirements must be considered.
transport class	ISOPOL® mats are not classified as hazardous substances in the sense of the ADR.
disposal	ISOPOL® mats are recyclable. Waste code according to European Waste Catalogue Regulation: 19 12 04. Local requirements regarding disposal must be considered.

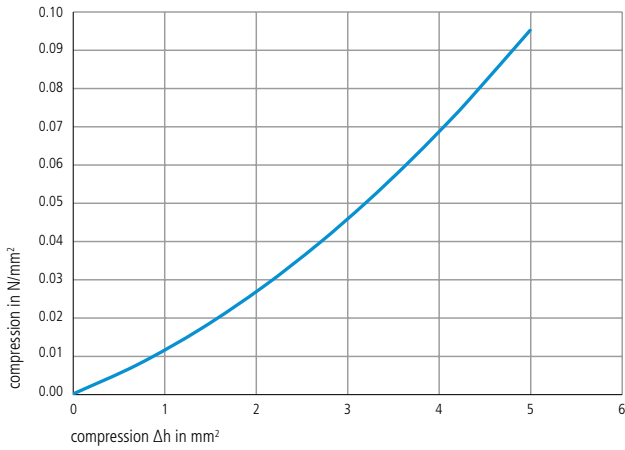
<sup>(1)</sup> The values determined refer exclusively to the test setup in the acoustics laboratory: 240 mm thick concrete ceiling, ISOPOL® mats, concrete slab 300 kg/m<sup>2</sup>, not glued, with surface correction.

# ISOPOL® rubber granulate mats 163-20-V

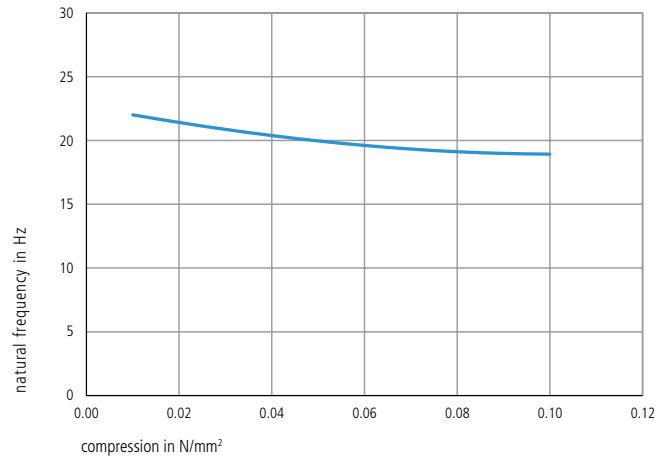
High-quality rubber granulate mats for structure-borne sound insulation and impact sound reduction

Material properties: Determined by Müller-BBM, on behalf of HBT-ISOL (mean value from 5 samples, according to DIN 10846, Report: M147132/02)

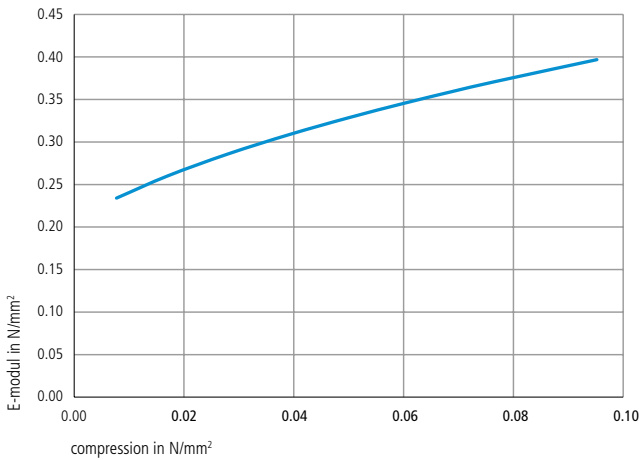
## compression



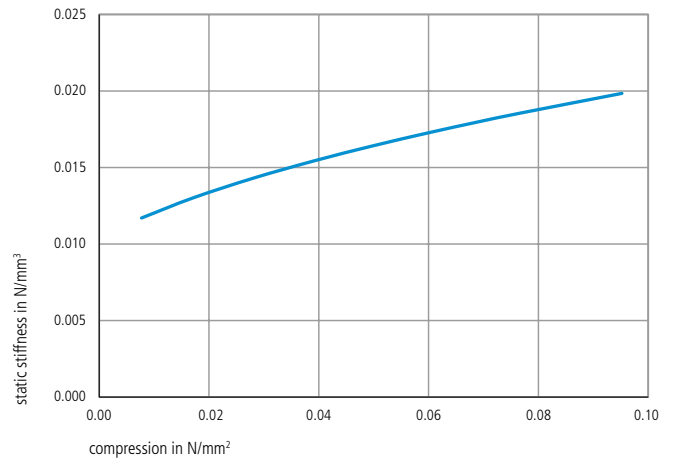
## natural frequency <sup>(2)</sup>



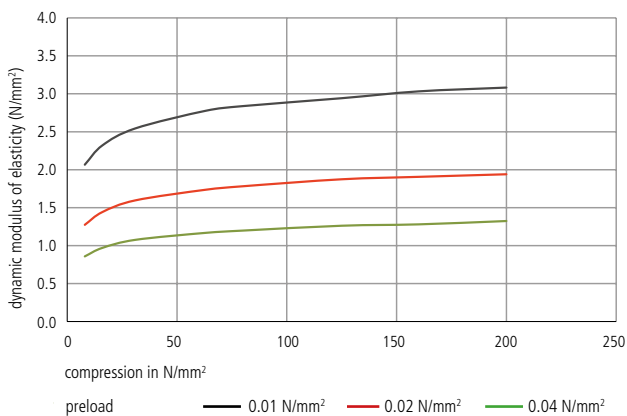
## static modulus of elasticity



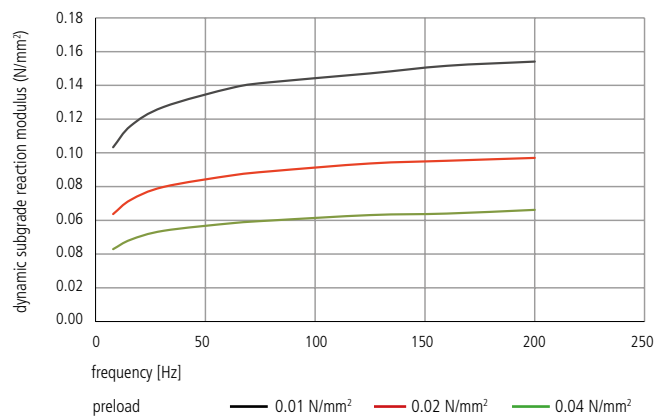
## static stiffness



## dynamic modulus of elasticity



## dynamic stiffness



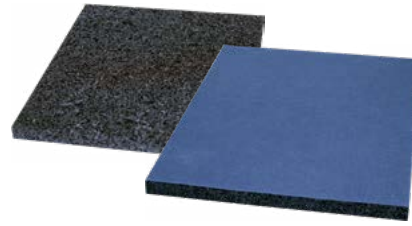
<sup>(2)</sup> calculated values

## ISOPOL® rubber granulate mats 163-30-V

High-quality rubber granulate mats for structure-borne sound insulation and impact sound reduction

### MATERIAL

ISOPOL®-163-30-V rubber granulate mats are made from recycled rubber. For this purpose, technically high-quality rubber grains are pressed and a geotextile is laminated with the addition of a PU binding agent.



### APPLICATION AREA

ISOPOL®-163-30-V rubber granulate mats are used for structure-borne sound and impact sound reduction in separation of buildings, parts of buildings (e.g. underlays/load distribution plates for mixed residential/commercial uses) and machine foundations. ISOPOL® mats meet the highest demands and are particularly suitable if a bearing is to achieve high insulation values at medium loads or if exact loads cannot be determined.

### FEATURES

- 100% recyclable	- self-draining at vertical use	- with geotextile lamination
- permanently elastic and rot-proof	- low creep behaviour	- extremely robust and durable
- high homogeneity	- high resilience	
- moisture resistant	- stable against weak acids and alkalis	

### PRODUCT-/LOGISTICS DATA

colour	black
form	mats, both sides flat
thickness	30 ± 1 mm
length x width	1'200 x 500 mm
weight per surface	ca. 14.0 kg/m <sup>2</sup>
warehousing	store in a dry place, do not expose to direct sunlight
storage period	with correct storage almost unrestricted

### TECHNICAL DATA

impact sound reduction	≥ 26 dB <sup>(1)</sup>
compression	0.1 N/mm <sup>2</sup> , 100 kN/m <sup>2</sup> (recommended upper limit at use level)
dynamic stiffness	≤ 27 MN/m <sup>3</sup> , measurement according to DIN EN 29052-1
compression	10% at ca. 0.03 N/mm <sup>2</sup> , 20% at ca. 0.078 N/mm <sup>2</sup>
fire reaction class	E <sub>fl</sub> (according to EN 13501-1)
temperature resistance	long-term: - 40°C to + 80°C, short-term: to + 110°C
thermal conductivity	0.08 W/mK

### PROCESSING

ground / subfloor	Direct contact of ISOPOL® mats with materials containing plasticisers must be avoided (use separating layer). Requirements of bearing surface: Load-bearing capacity > compression der ISOPOL®-mats. No loose components. Free of excess teeth and gravel pockets. Flatness under 2 m lath ≤ 10 mm, at > 10 mm reprofile. Broom clean. (Norm SIA-271:2007)
installation	The ISOPOL®-mats are laid loosely, the joints are butt-jointed. Before concreting work, the ISOPOL®-mats are protected with 2 layers of tough PE film (0.2 mm) and glued so that they are watertight.
superstructure	Concrete or subfloors with a flowable consistency as well as aerated concrete are only suitable to a limited extent and require additional, special sealing measures
processing instructions	The installation of ISOPOL® mats should only be carried out by trained personnel. When using auxiliary products, such as adhesives, the ambient temperature and humidity must meet the requirements of the auxiliary products used. The corresponding product data mats must be considered.

### SAFETY / HEALTH

safety notice	Local safety requirements must be considered.
transport class	ISOPOL® mats are not classified as hazardous substances in the sense of the ADR.
disposal	ISOPOL® mats are recyclable. Waste code according to European Waste Catalogue Regulation: 19 12 04. Local requirements regarding disposal must be considered.

<sup>(1)</sup> The values determined refer exclusively to the test setup in the acoustics laboratory: 240 mm thick concrete ceiling, ISOPOL® mats, concrete slab 300 kg/m<sup>2</sup>, not glued, with surface correction.

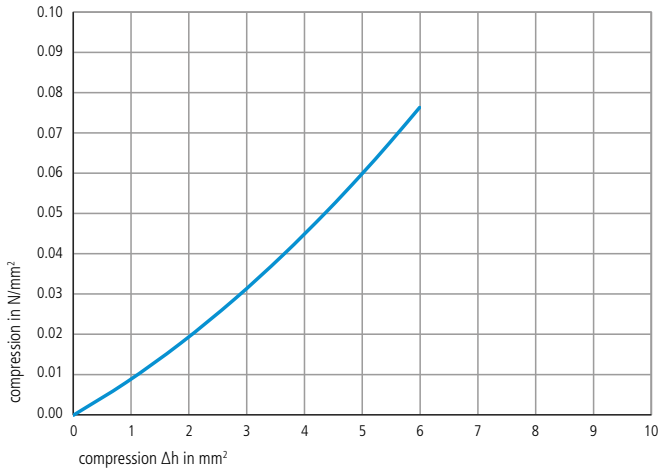


# ISOPOL® rubber granulate mats 163-30-V

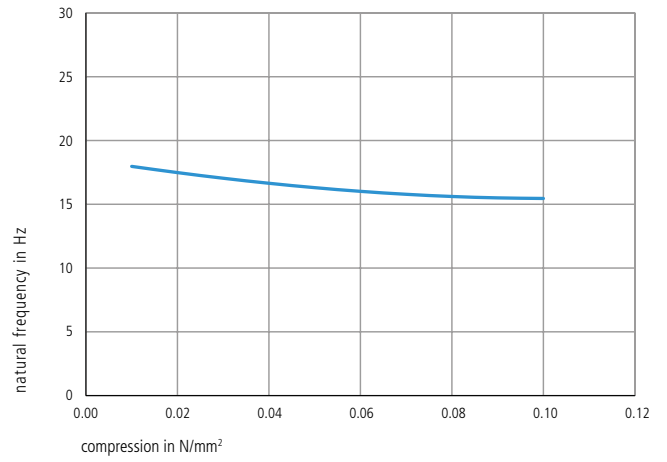
High-quality rubber granulate mats for structure-borne sound insulation and impact sound reduction

Material properties: Determined by Müller-BBM, on behalf of HBT-ISOL (mean value from 5 samples, according to DIN 10846, Report: M147132/02)

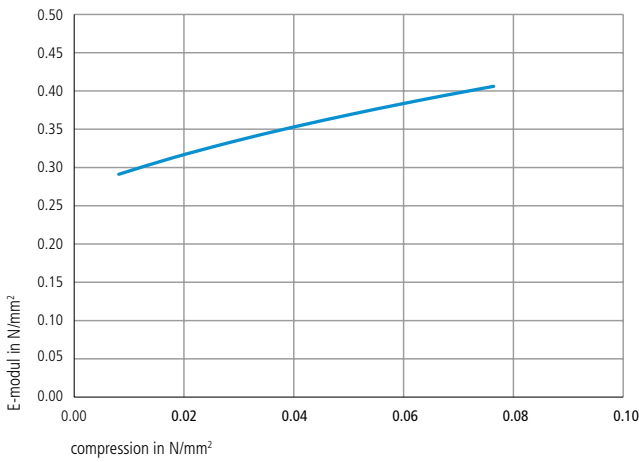
## compression



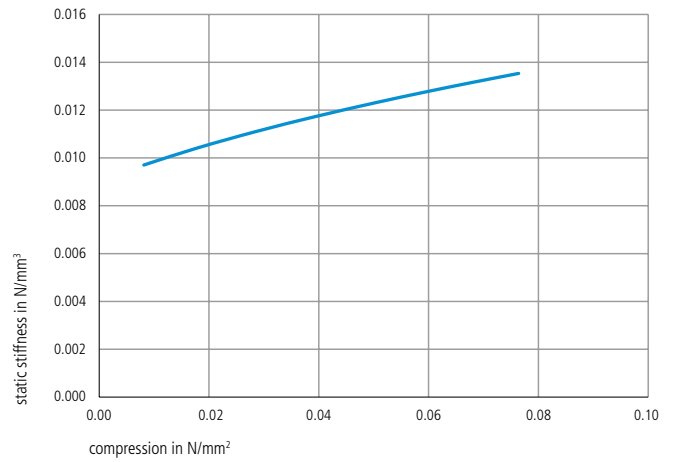
## natural frequency <sup>(2)</sup>



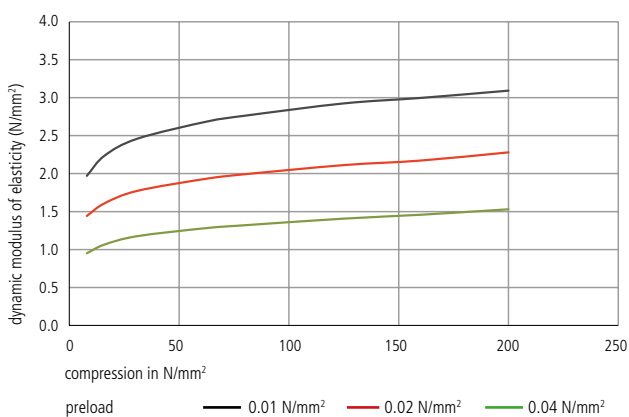
## static modulus of elasticity



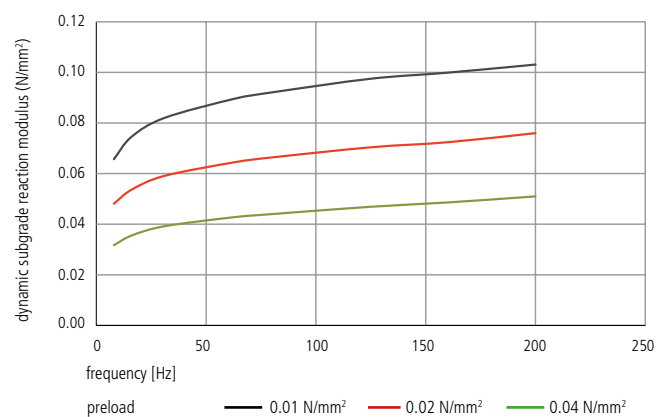
## static stiffness



## dynamic modulus of elasticity



## dynamic stiffness



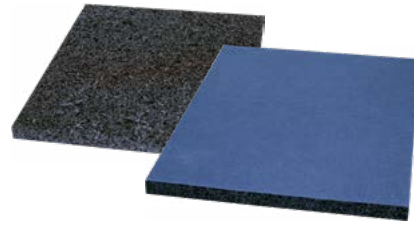
<sup>(2)</sup> calculated values

## ISOPOL® rubber granulate mats 163-50-V

High-quality rubber granulate mats for structure-borne sound insulation and impact sound reduction

### MATERIAL

ISOPOL®-163-50-V rubber granulate mats are made from recycled rubber. For this purpose, technically high-quality rubber grains are pressed and a geotextile is laminated with the addition of a PU binding agent.



### APPLICATION AREA

ISOPOL®-163-50-V rubber granulate mats are used for structure-borne sound and impact sound reduction in separation of buildings, parts of buildings (e.g. underlays/load distribution plates for mixed residential/commercial uses) and machine foundations. ISOPOL® mats meet the highest demands and are particularly suitable if a bearing is to achieve high insulation values at medium loads or if exact loads cannot be determined.

### FEATURES

- 100% recyclable	- self-draining at vertical use	- with geotextile lamination
- permanently elastic and rot-proof	- low creep behaviour	- extremely robust and durable
- high homogeneity	- high resilience	
- moisture resistant	- stable against weak acids and alkalis	

### PRODUCT-/LOGISTICS DATA

colour	black
form	mats, both sides flat
thickness	50 ± 1 mm
length x width	1'200 x 500 mm
weight per surface	ca. 23.0 kg/m <sup>2</sup>
warehousing	store in a dry place, do not expose to direct sunlight
storage period	with correct storage almost unrestricted

### TECHNICAL DATA

impact sound reduction	≥ 28 dB <sup>(1)</sup>
compression	0.1 N/mm <sup>2</sup> , 100 kN/m <sup>2</sup> (recommended upper limit at use level)
dynamic stiffness	≤ 22 MN/m <sup>3</sup> , measurement according to DIN EN 29052-1
compression	10% at ca. 0.035 N/mm <sup>2</sup> , 20% at ca. 0.085 N/mm <sup>2</sup>
fire reaction class	E <sub>fl</sub> (according to EN 13501-1)
temperature resistance	long-term: - 40°C to + 80°C, short-term: to + 110°C
thermal conductivity	0.08 W/mK

### PROCESSING

ground / subfloor	Direct contact of ISOPOL® mats with materials containing plasticisers must be avoided (use separating layer). Requirements of bearing surface: Load-bearing capacity > compression der ISOPOL®-mats. No loose components. Free of excess teeth and gravel pockets. Flatness under 2 m lath ≤ 10 mm, at > 10 mm reprofile. Broom clean. (Norm SIA-271:2007)
installation	The ISOPOL®-mats are laid loosely, the joints are butt-jointed. Before concreting work, the ISOPOL®-mats are protected with 2 layers of tough PE film (0.2 mm) and glued so that they are watertight.
superstructure	Concrete or subfloors with a flowable consistency as well as aerated concrete are only suitable to a limited extent and require additional, special sealing measures
processing instructions	The installation of ISOPOL® mats should only be carried out by trained personnel. When using auxiliary products, such as adhesives, the ambient temperature and humidity must meet the requirements of the auxiliary products used. The corresponding product data mats must be considered.

### SAFETY / HEALTH

safety notice	Local safety requirements must be considered.
transport class	ISOPOL® mats are not classified as hazardous substances in the sense of the ADR.
disposal	ISOPOL® mats are recyclable. Waste code according to European Waste Catalogue Regulation: 19 12 04. Local requirements regarding disposal must be considered.

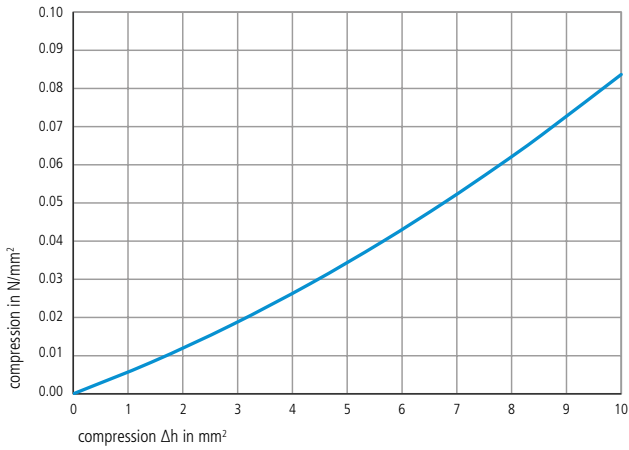
<sup>(1)</sup> The values determined refer exclusively to the test setup in the acoustics laboratory: 240 mm thick concrete ceiling, ISOPOL® mats, concrete slab 300 kg/m<sup>2</sup>, not glued, with surface correction.

## ISOPOL® rubber granulate mats 163-50-V

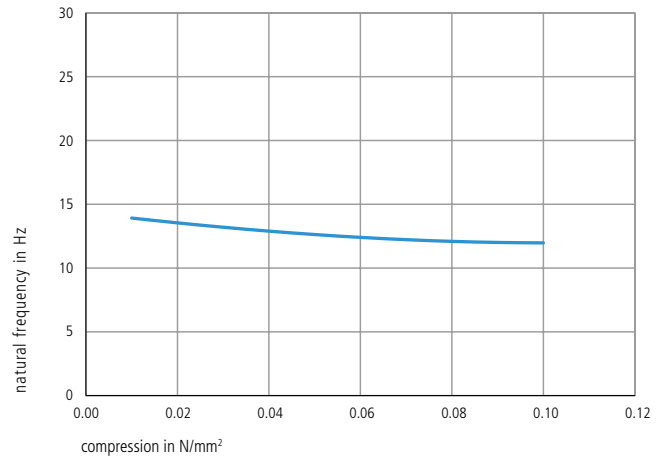
High-quality rubber granulate mats for structure-borne sound insulation and impact sound reduction

Material properties: Determined by Müller-BBM, on behalf of HBT-ISOL (mean value from 5 samples, according to DIN 10846, Report: M147132/03)

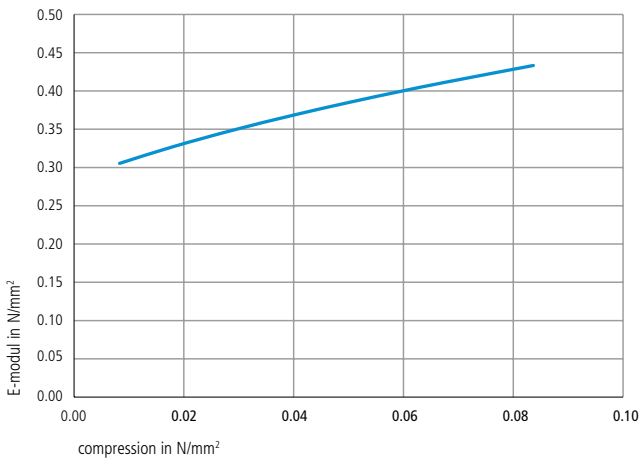
**compression**



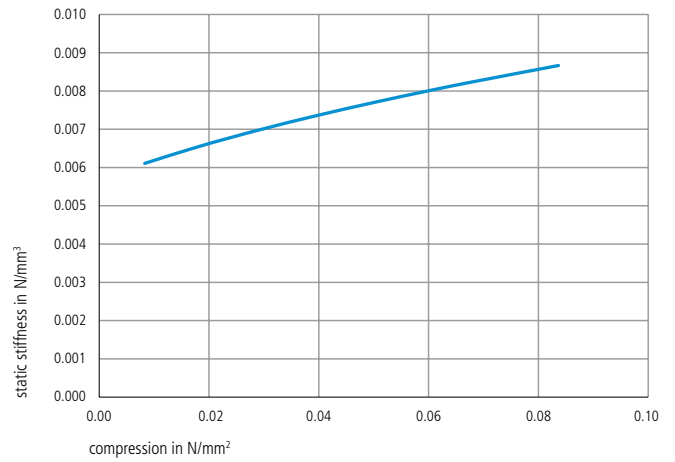
**natural frequency <sup>(2)</sup>**



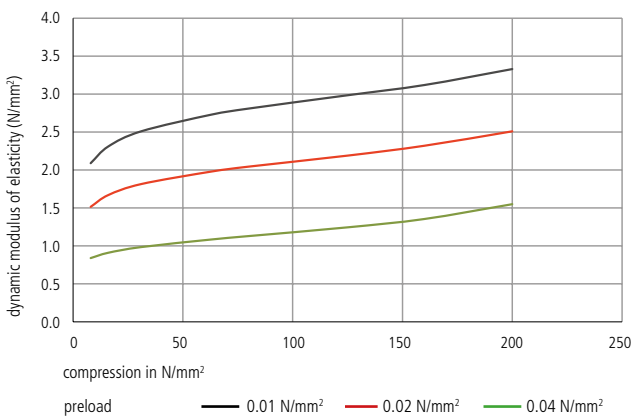
**static modulus of elasticity**



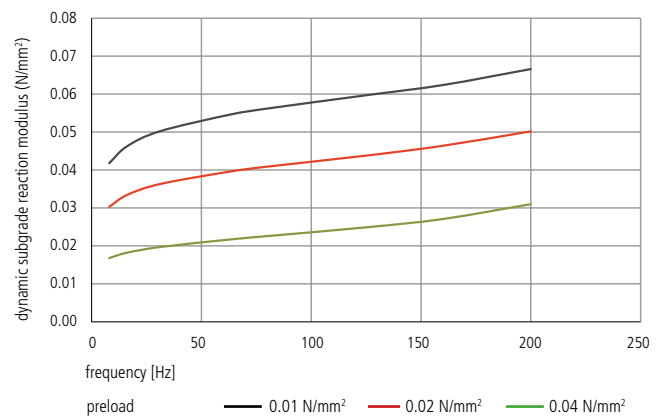
**static stiffness**



**dynamic modulus of elasticity**



**dynamic stiffness**



<sup>(2)</sup> calculated values

## ISOPOL® rubber granulate mats 260-15

High-quality rubber granulate mats for structure-borne sound insulation and impact sound reduction

### MATERIAL

ISOPOL®-260-15 rubber granulate mats are manufactured from recycled rubber granules. For this purpose, technically high-quality rubber granules are compressed with the addition of a PU binder.



### APPLICATION AREA

ISOPOL®-260-15 rubber granulate mats are used for structure-borne sound and impact sound reduction and separation of buildings, parts of buildings (e.g. underlays/load distribution plates for mixed residential/commercial uses) and machine foundations. ISOPOL® mats meet the highest demands and are particularly suitable if a bearing is to achieve high insulation values at medium loads or if exact loads cannot be determined.

### FEATURES

- 100% recyclable	- self-draining	- extremely robust and durable
- high homogeneity	- low creep behaviour	- stable against weak acids and alkalis
- moisture resistant	- high resilience	- permanently elastic and rot-proof

### PRODUCT-/LOGISTICS DATA

colour	black
form	mats, both sides flat
thickness	15 ± 1 mm
length x width	1'000 x 500 mm
weight per surface	ca. 10.5 kg/m <sup>2</sup>
warehousing	store in a dry place, do not expose to direct sunlight
storage period	with correct storage almost unrestricted

### TECHNICAL DATA

impact sound reduction	≥ 16 dB <sup>(1)</sup>
max. compression	0.28 N/mm <sup>2</sup> , 280 kN/m <sup>2</sup> (recommended upper limit at use level)
compression	10% at ca. 0.12 N/mm <sup>2</sup> , 20% at ca. 0.32 N/mm <sup>2</sup>
fire reaction class	E <sub>fl</sub> (according to EN 13501-1)
temperature resistance	long-term: - 40°C to + 80°C, short-term: to + 110°C
thermal conductivity	0.11 W/mK

### PROCESSING

ground / subfloor	Direct contact of ISOPOL® mats with materials containing plasticisers must be avoided (use separating layer). Requirements of bearing surface: Load-bearing capacity > compression der ISOPOL®-mats. No loose components. Free of excess teeth and gravel pockets. Flatness under 2 m lath ≤ 10 mm, at > 10 mm reprofile. Broom clean. (Norm SIA-271:2007)
installation	The ISOPOL®-mats are laid loosely with the studs according to to below, the butt joints are butted tightly. Before concreting rats are die ISOPOL®-mats are protected with 2 layers of tough PE film (0.2 mm) and glued so that they are watertight.
superstructure	Concrete or subfloors with a flowable consistency as well as aerated concrete are only suitable to a limited extent and require additional, special sealing measures
processing instructions	The installation of ISOPOL® mats should only be carried out by trained personnel. When using auxiliary products, such as adhesives, the ambient temperature and humidity must meet the requirements of the auxiliary products used. The corresponding product data mats must be considered.

### SAFETY / HEALTH

safety notice	Local safety requirements must be considered.
transport class	ISOPOL® mats are not classified as hazardous substances in the sense of the ADR.
disposal	ISOPOL® mats are recyclable. Waste code according to European Waste Catalogue Regulation: 19 12 04. Local requirements regarding disposal must be considered.

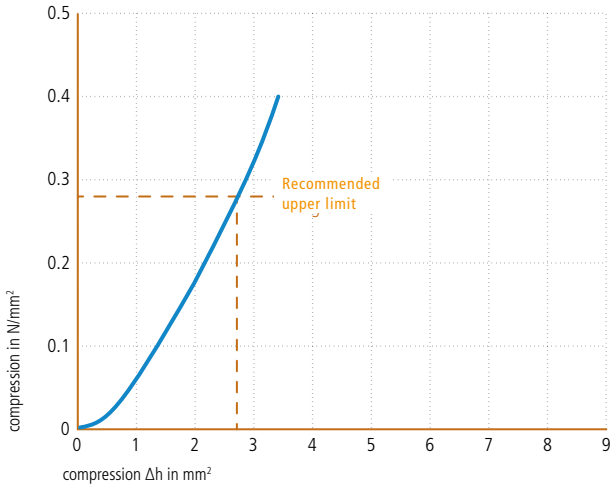
<sup>(1)</sup> The values determined refer exclusively to the test setup in the acoustics laboratory: 240 mm thick concrete ceiling, ISOPOL® mats, concrete slab 300 kg/m<sup>2</sup>, not glued, with surface correction.

# ISOPOL® rubber granulate mats 260-15

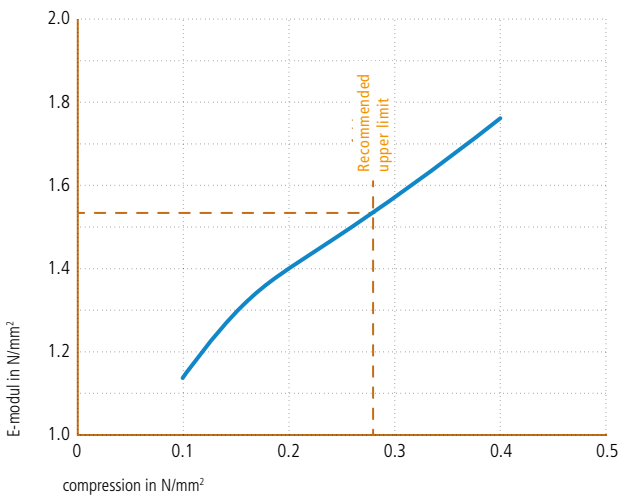
High-quality rubber granulate mats for structure-borne sound insulation and impact sound reduction

Material characteristics determined by the Technical University of Munich, on behalf of HBT-ISOL (according to DIN 45673-7)

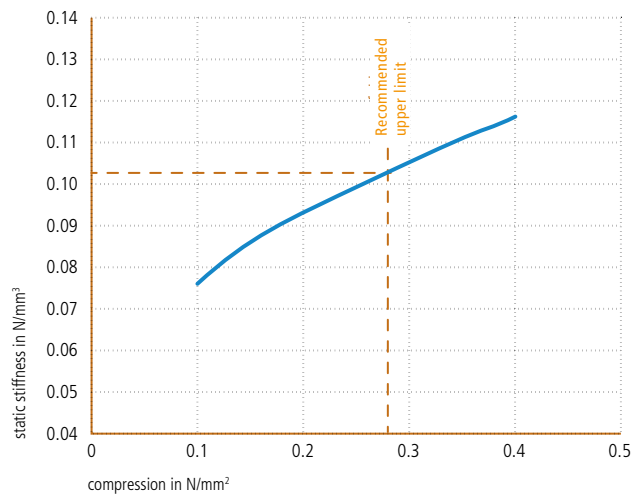
## compression



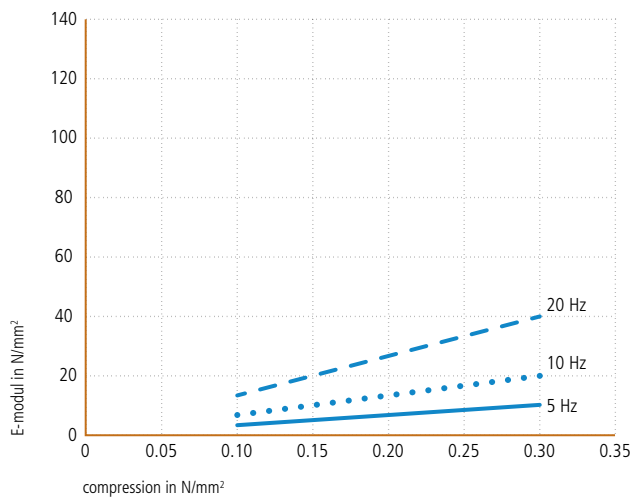
## static modulus of elasticity



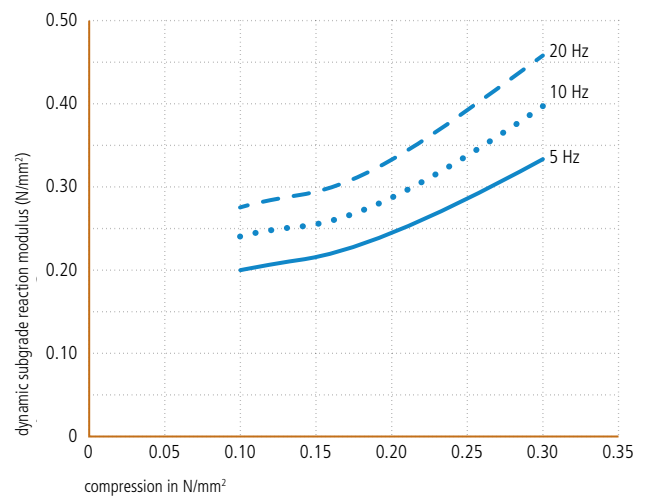
## static stiffness



## dynamic modulus of elasticity



## dynamic stiffness



## ISOPOL® rubber granulate mats 260-20

High-quality rubber granulate mats for structure-borne sound insulation and impact sound reduction

### MATERIAL

ISOPOL®-260-20 rubber granulate mats are manufactured from recycled rubber granules. For this purpose, technically high-quality rubber granules are compressed with the addition of a PU binder.



### APPLICATION AREA

ISOPOL®-260-20 rubber granulate mats are used for structure-borne sound and impact sound reduction and separation of buildings, parts of buildings (e.g. underlays/load distribution plates for mixed residential/commercial uses) and machine foundations. ISOPOL® mats meet the highest demands and are particularly suitable if a bearing is to achieve high insulation values at medium loads or if exact loads cannot be determined.

### FEATURES

- 100% recyclable	- self-draining	- extremely robust and durable
- high homogeneity	- low creep behaviour	- stable against weak acids and alkalis
- moisture resistant	- high resilience	- permanently elastic and rot-proof

### PRODUCT-/LOGISTICS DATA

colour	black
form	mats, both sides flat
thickness	20 ± 1 mm
length x width	1'000 x 500 mm
weight per surface	ca. 14.0 kg/m <sup>2</sup>
warehousing	store in a dry place, do not expose to direct sunlight
storage period	with correct storage almost unrestricted

### TECHNICAL DATA

impact sound reduction	≥ 17 dB <sup>(1)</sup>
compression	0.30 N/mm <sup>2</sup> , 300 kN/m <sup>2</sup> (recommended upper limit at use level)
dynamic stiffness	≤ 73 MN/m <sup>3</sup>
compression	10% at ca. 0.12 N/mm <sup>2</sup> , 20% at ca. 0.32 N/mm <sup>2</sup>
fire reaction class	E <sub>fl</sub> (according to EN 13501-1)
temperature resistance	long-term: - 40°C to + 80°C, short-term: to + 110°C
thermal conductivity	0.11 W/mK

### PROCESSING

ground / subfloor	Direct contact of ISOPOL® mats with materials containing plasticisers must be avoided (use separating layer). Requirements of bearing surface: Load-bearing capacity > compression der ISOPOL®-mats. No loose components. Free of excess teeth and gravel pockets. Flatness under 2 m lath ≤ 10 mm, at > 10 mm reprofile. Broom clean. (Norm SIA-271:2007)
installation	The ISOPOL®-mats are laid loosely with the studs according to to below, the butt joints are butted tightly. Before concreting rats are die ISOPOL®-mats are protected with 2 layers of tough PE film (0.2 mm) and glued so that they are watertight.
superstructure	Concrete or subfloors with a flowable consistency as well as aerated concrete are only suitable to a limited extent and require additional, special sealing measures
processing instructions	The installation of ISOPOL® mats should only be carried out by trained personnel. When using auxiliary products, such as adhesives, the ambient temperature and humidity must meet the requirements of the auxiliary products used. The corresponding product data mats must be considered.

### SAFETY / HEALTH

safety notice	Local safety requirements must be considered.
transport class	ISOPOL® mats are not classified as hazardous substances in the sense of the ADR.
disposal	ISOPOL® mats are recyclable. Waste code according to European Waste Catalogue Regulation: 19 12 04. Local requirements regarding disposal must be considered.

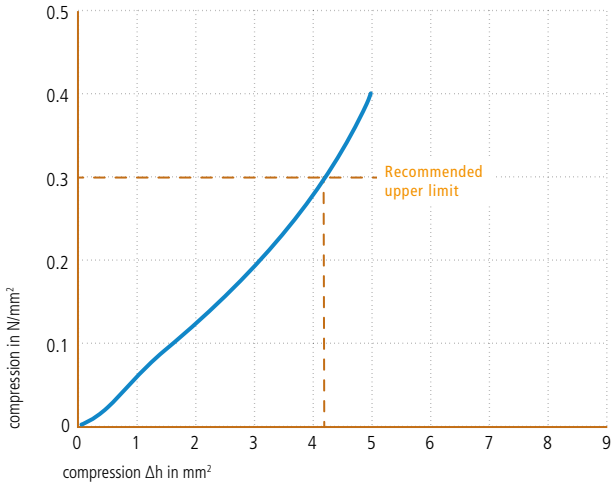
<sup>(1)</sup> The values determined refer exclusively to the test setup in the acoustics laboratory: 240 mm thick concrete ceiling, ISOPOL® mats, concrete slab 300 kg/m<sup>2</sup>, not glued, with surface correction.

# ISOPOL® rubber granulate mats 260-20

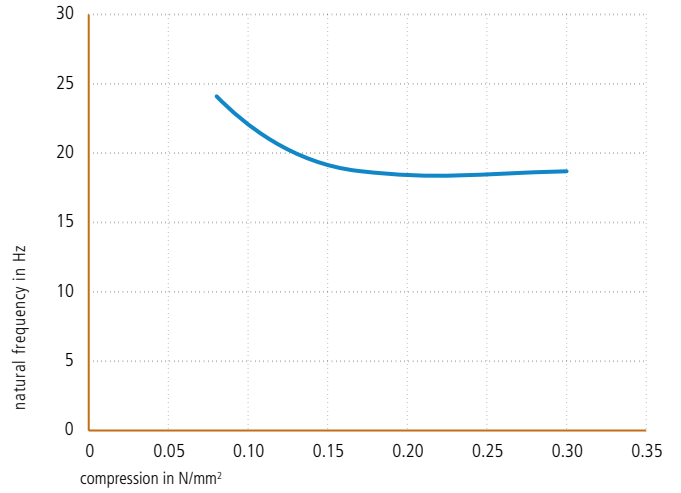
High-quality rubber granulate mats for structure-borne sound insulation and impact sound reduction

Material characteristics determined by the Technical University of Munich, on behalf of HBT-ISOL (according to DIN 45673-7)

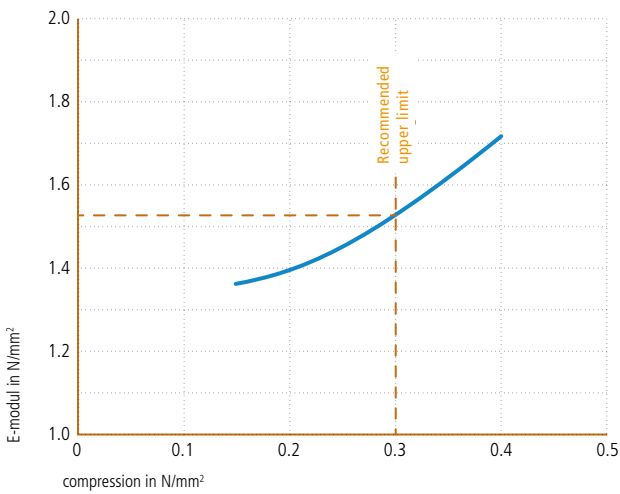
## compression



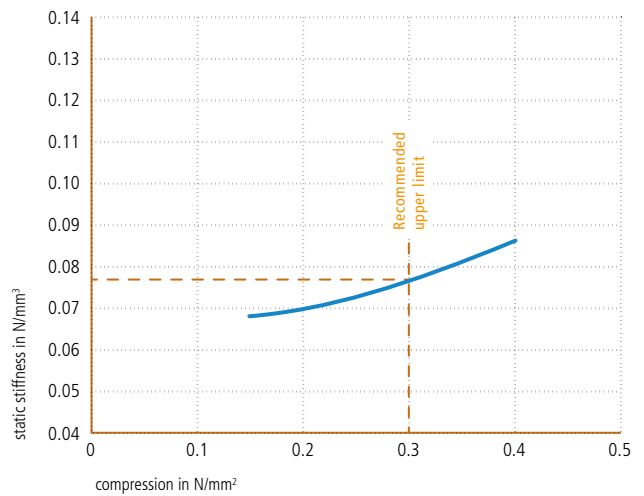
## natural frequency



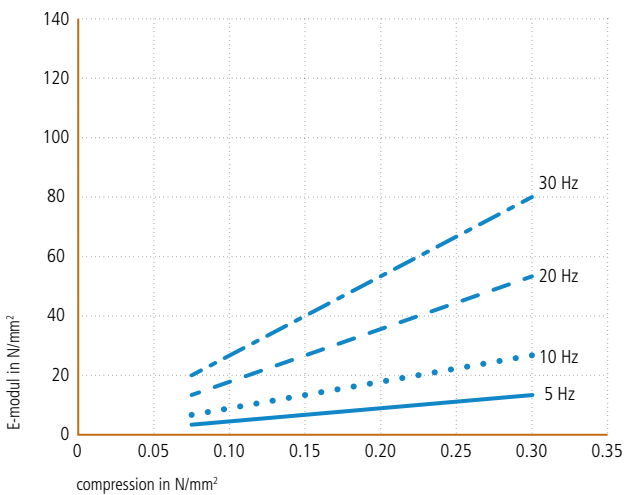
## static modulus of elasticity



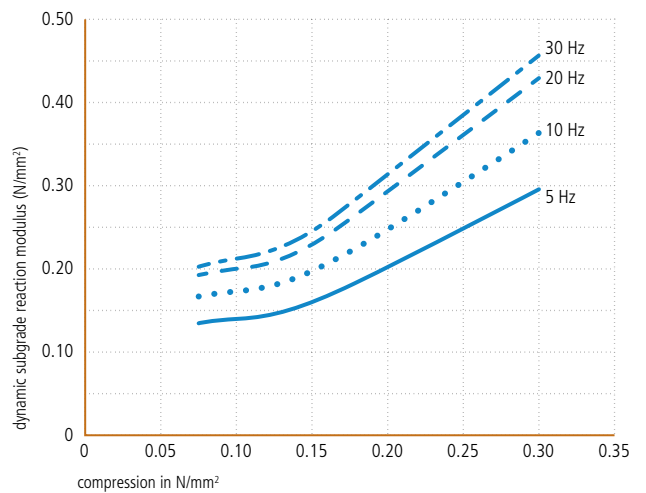
## static stiffness



## dynamic modulus of elasticity



## dynamic stiffness



## ISOPOL® rubber granulate mats 260-30

High-quality rubber granulate mats for structure-borne sound insulation and impact sound reduction

### MATERIAL

ISOPOL®-260-30 rubber granulate mats are manufactured from recycled rubber granules. For this purpose, technically high-quality rubber granules are compressed with the addition of a PU binder.



### APPLICATION AREA

ISOPOL®-260-30 rubber granulate mats are used for structure-borne sound and impact sound reduction and separation of buildings, parts of buildings (e.g. underlays/load distribution plates for mixed residential/commercial uses) and machine foundations. ISOPOL® mats meet the highest demands and are particularly suitable if a bearing is to achieve high insulation values at medium loads or if exact loads cannot be determined.

### FEATURES

- 100% recyclable	- self-draining	- extremely robust and durable
- high homogeneity	- low creep behaviour	- stable against weak acids and alkalis
- moisture resistant	- high resilience	- permanently elastic and rot-proof

### PRODUCT-/LOGISTICS DATA

colour	black
form	mats, both sides flat
thickness	30 ± 1 mm
length x width	1'000 x 500 mm
weight per surface	ca. 21.0 kg/m <sup>2</sup>
warehousing	store in a dry place, do not expose to direct sunlight
storage period	with correct storage almost unrestricted

### TECHNICAL DATA

impact sound reduction	≥ 18 dB <sup>(1)</sup>
compression	0.32 N/mm <sup>2</sup> , 320 kN/m <sup>2</sup> (recommended upper limit at use level)
compression	10% at ca. 0.14 N/mm <sup>2</sup> , 20% at ca. 0.30 N/mm <sup>2</sup>
fire reaction class	E <sub>fl</sub> (according to EN 13501-1)
temperature resistance	long-term: - 40°C to + 80°C, short-term: to + 110°C
thermal conductivity	0.11 W/mK

### PROCESSING

ground / subfloor	Direct contact of ISOPOL® mats with materials containing plasticisers must be avoided (use separating layer). Requirements of bearing surface: Load-bearing capacity > compression der ISOPOL®-mats. No loose components. Free of excess teeth and gravel pockets. Flatness under 2 m lath ≤ 10 mm, at > 10 mm reprofile. Broom clean. (Norm SIA-271:2007)
installation	The ISOPOL®-mats are laid loosely with the studs according to to below, the butt joints are butted tightly. Before concreting rats are die ISOPOL®-mats are protected with 2 layers of tough PE film (0.2 mm) and glued so that they are watertight.
superstructure	Concrete or subfloors with a flowable consistency as well as aerated concrete are only suitable to a limited extent and require additional, special sealing measures
processing instructions	The installation of ISOPOL® mats should only be carried out by trained personnel. When using auxiliary products, such as adhesives, the ambient temperature and humidity must meet the requirements of the auxiliary products used. The corresponding product data mats must be considered.

### SAFETY/HEALTH

safety notice	Local safety requirements must be considered.
transport class	ISOPOL® mats are not classified as hazardous substances in the sense of the ADR.
disposal	ISOPOL® mats are recyclable. Waste code according to European Waste Catalogue Regulation: 19 12 04. Local requirements regarding disposal must be considered.

<sup>(1)</sup> The values determined refer exclusively to the test setup in the acoustics laboratory: 240 mm thick concrete ceiling, ISOPOL® mats, concrete slab 300 kg/m<sup>2</sup>, not glued, with surface correction.

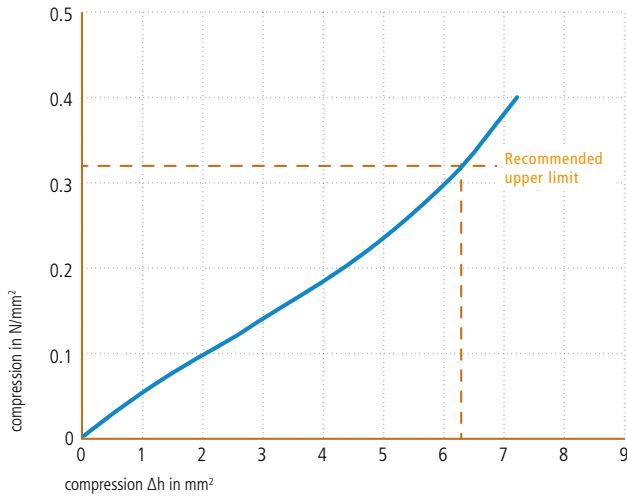


# ISOPOL® rubber granulate mats 260-30

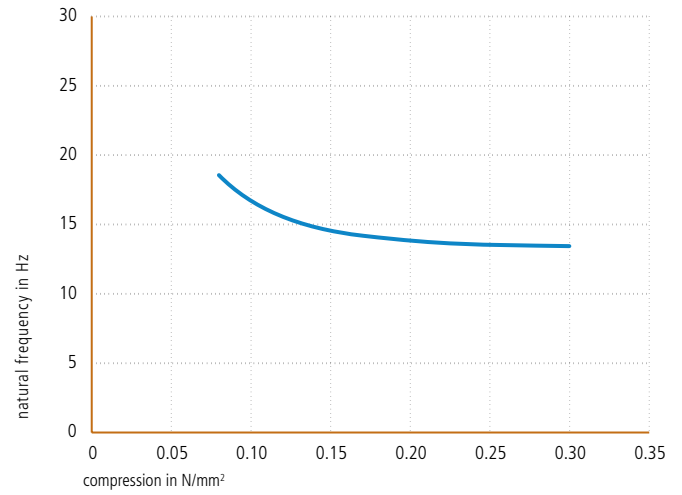
High-quality rubber granulate mats for structure-borne sound insulation and impact sound reduction

Material characteristics determined by the Technical University of Munich, on behalf of HBT-ISOL (according to DIN 45673-7)

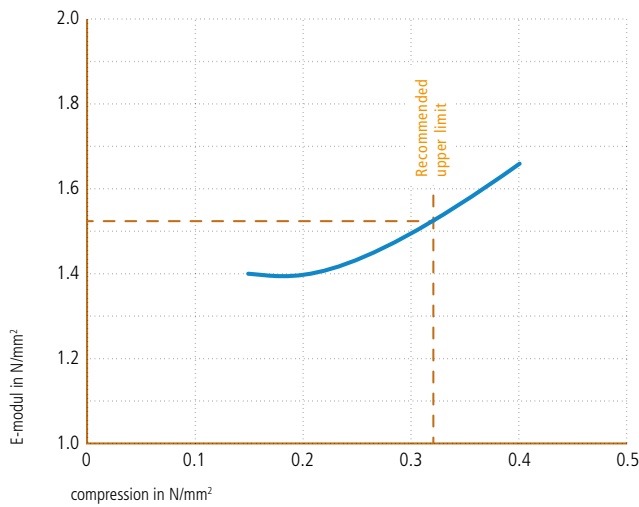
## compression



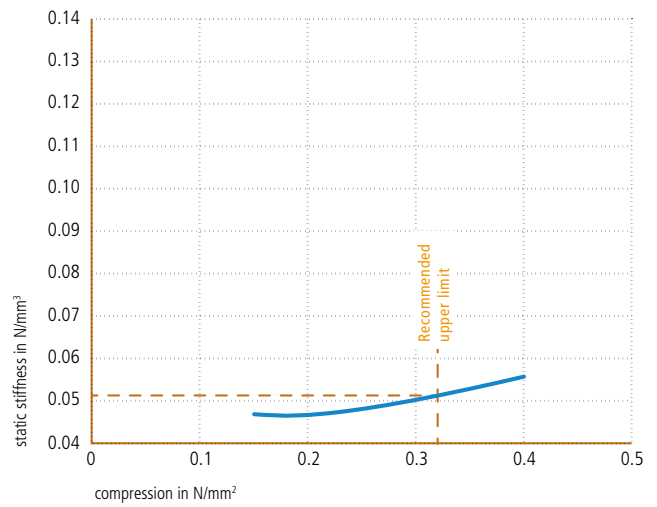
## natural frequency



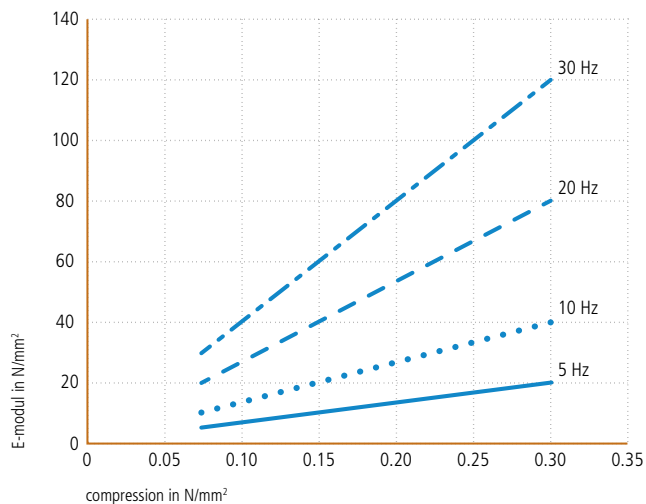
## static modulus of elasticity



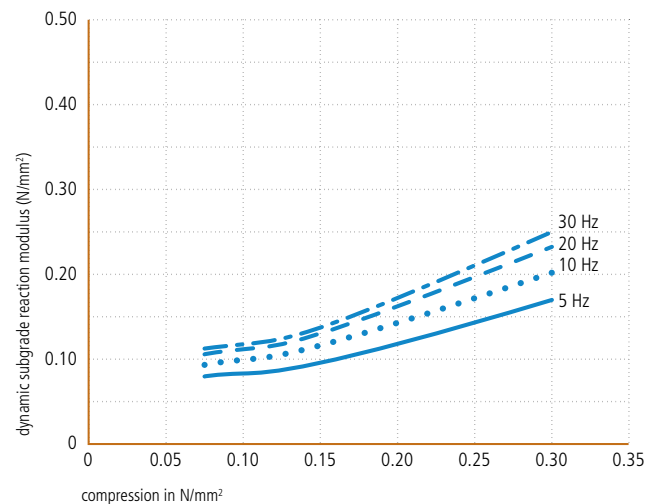
## static stiffness



## dynamic modulus of elasticity



## dynamic stiffness



## ISOPOL® rubber granulate mats 330-10

High-quality rubber granulate mats for structure-borne sound insulation and impact sound reduction

### MATERIAL

ISOPOL®-330-10 rubber granulate mats are manufactured from recycled rubber granules. For this purpose, technically high-quality rubber granules are compressed with the addition of a PU binder.



### APPLICATION AREA

ISOPOL®-330-10 rubber granulate mats are used for structure-borne sound and impact sound reduction and separation of buildings, parts of buildings (e.g. underlays/load distribution plates for mixed residential/commercial uses) and machine foundations. ISOPOL® mats meet the highest demands and are particularly suitable if a bearing is to achieve high insulation values at medium loads or if exact loads cannot be determined.

### FEATURES

- 100% recyclable	- self-draining	- extremely robust and durable
- high homogeneity	- low creep behaviour	- stable against weak acids and alkalis
- moisture resistant	- high resilience	- permanently elastic and rot-proof

### PRODUCT-/LOGISTICS DATA

colour	black
form	mats, both sides flat
thickness	10 ± 1 mm
length x width	1'000 x 1'000 mm
weight per surface	ca. 9.0 kg/m <sup>2</sup>
warehousing	store in a dry place, do not expose to direct sunlight
storage period	with correct storage almost unrestricted

### TECHNICAL DATA

impact sound reduction	≥ 12 dB <sup>(1)</sup>
compression	0.80 N/mm <sup>2</sup> , 800 kN/m <sup>2</sup> (recommended upper limit at use level)
compression	10% at ca. 0.40 N/mm <sup>2</sup> , 15% at ca. 0.70 N/mm <sup>2</sup>
fire reaction class	E <sub>fl,r</sub> (according to EN 13501-1)
temperature resistance	long-term: - 40°C to + 80°C, short-term: to + 110°C
thermal conductivity	0.17 W/mK

### PROCESSING

ground / subfloor	Direct contact of ISOPOL® mats with materials containing plasticisers must be avoided (use separating layer). Requirements of bearing surface: Load-bearing capacity > compression der ISOPOL®-mats. No loose components. Free of excess teeth and gravel pockets. Flatness under 2 m lath ≤ 10 mm, at > 10 mm reprofile. Broom clean. (Norm SIA-271:2007)
installation	The ISOPOL®-mats are laid loosely with the studs according to to below, the butt joints are butted tightly. Before concreting rats are die ISOPOL®-mats are protected with 2 layers of tough PE film (0.2 mm) and glued so that they are watertight.
superstructure	Concrete or subfloors with a flowable consistency as well as aerated concrete are only suitable to a limited extent and require additional, special sealing measures
processing instructions	The installation of ISOPOL® mats should only be carried out by trained personnel. When using auxiliary products, such as adhesives, the ambient temperature and humidity must meet the requirements of the auxiliary products used. The corresponding product data mats must be considered.

### SAFETY / HEALTH

safety notice	Local safety requirements must be considered.
transport class	ISOPOL® mats are not classified as hazardous substances in the sense of the ADR.
disposal	ISOPOL® mats are recyclable. Waste code according to European Waste Catalogue Regulation: 19 12 04. Local requirements regarding disposal must be considered.

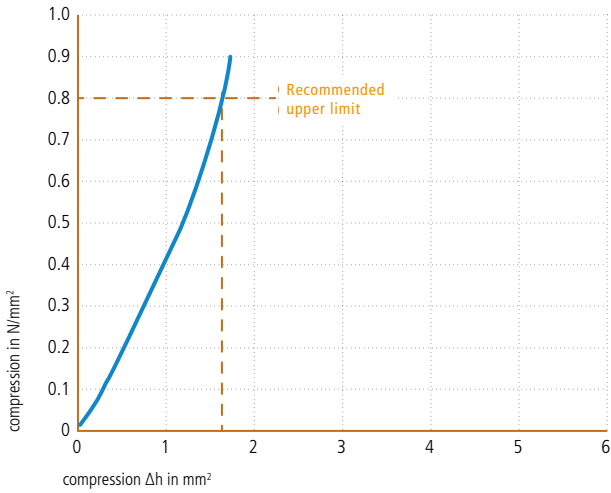
<sup>(1)</sup> The values determined refer exclusively to the test setup in the acoustics laboratory: 240 mm thick concrete ceiling, ISOPOL® mats, concrete slab 300 kg/m<sup>2</sup>, not glued, with surface correction.

# ISOPOL® rubber granulate mats 330-10

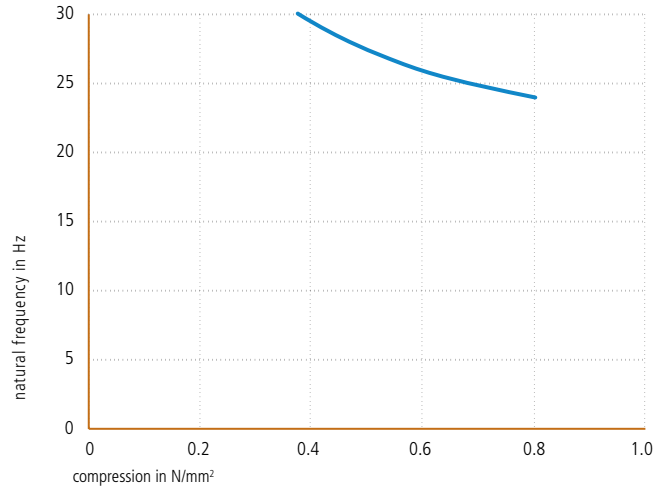
High-quality rubber granulate mats for structure-borne sound insulation and impact sound reduction

Material characteristics determined by the Technical University of Munich, on behalf of HBT-ISOL (according to DIN 45673-7)

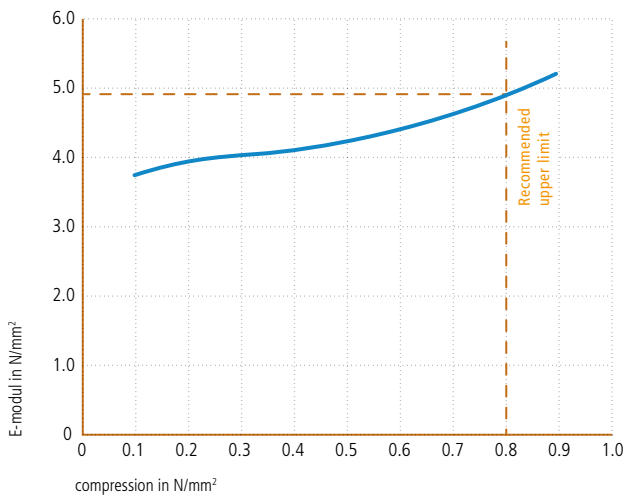
## compression



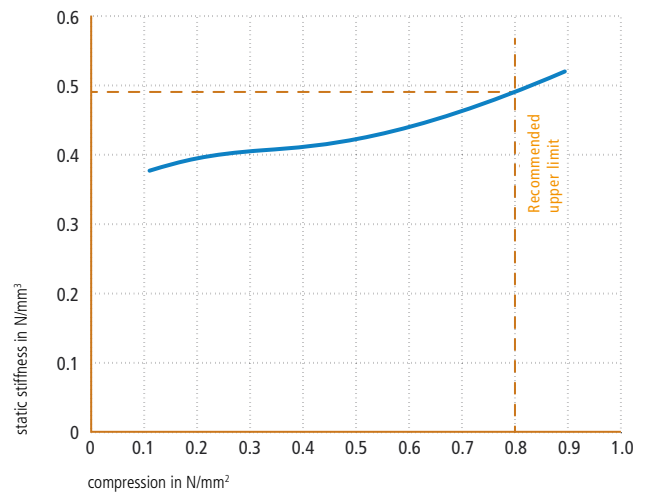
## natural frequency



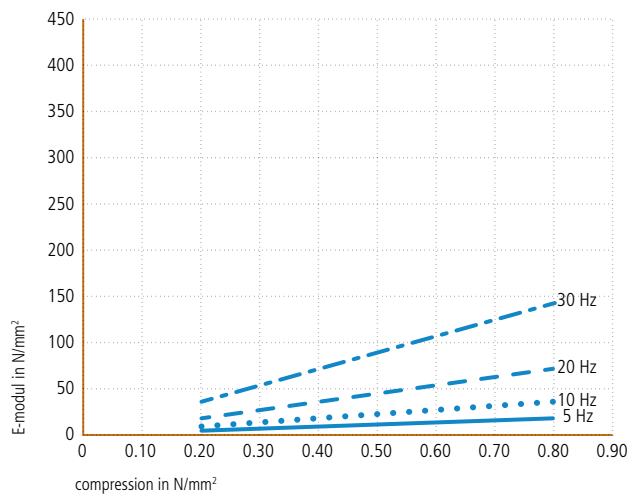
## static modulus of elasticity



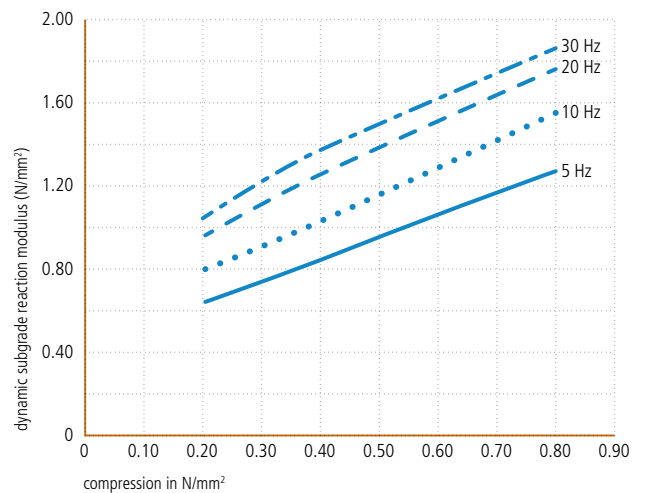
## static stiffness



## dynamic modulus of elasticity



## dynamic stiffness



## ISOPOL® rubber granulate mats 330-20

High-quality rubber granulate mats for structure-borne sound insulation and impact sound reduction

### MATERIAL

ISOPOL®-330-20 rubber granulate mats are manufactured from recycled rubber granules. For this purpose, technically high-quality rubber granules are compressed with the addition of a PU binder.



### APPLICATION AREA

ISOPOL®-330-20 rubber granulate mats are used for structure-borne sound and impact sound reduction and separation of buildings, parts of buildings (e.g. underlays/load distribution plates for mixed residential/commercial uses) and machine foundations. ISOPOL® mats meet the highest demands and are particularly suitable if a bearing is to achieve high insulation values at medium loads or if exact loads cannot be determined.

### FEATURES

- 100% recyclable	- self-draining	- extremely robust and durable
- high homogeneity	- low creep behaviour	- stable against weak acids and alkalis
- moisture resistant	- high resilience	- permanently elastic and rot-proof

### PRODUCT-/LOGISTICS DATA

colour	black
form	mats, both sides flat
thickness	20 ± 1 mm
length x width	1'000 x 500 mm
weight per surface	ca. 18.0 kg/m <sup>2</sup>
warehousing	store in a dry place, do not expose to direct sunlight
storage period	with correct storage almost unrestricted

### TECHNICAL DATA

impact sound reduction	≥ 16 dB <sup>(1)</sup>
compression	0.85 N/mm <sup>2</sup> , 850 kN/m <sup>2</sup> (recommended upper limit at use level)
compression	10% at ca. 0.44 N/mm <sup>2</sup> , 15% at ca. 0.75 N/mm <sup>2</sup>
fire reaction class	E <sub>fl,r</sub> (according to EN 13501-1)
temperature resistance	long-term: - 40°C to + 80°C, short-term: to + 110°C
thermal conductivity	0.17 W/mK

### PROCESSING

ground / subfloor	Direct contact of ISOPOL® mats with materials containing plasticisers must be avoided (use separating layer). Requirements of bearing surface: Load-bearing capacity > compression der ISOPOL®-mats. No loose components. Free of excess teeth and gravel pockets. Flatness under 2 m lath ≤ 10 mm, at > 10 mm reprofile. Broom clean. (Norm SIA-271:2007)
installation	The ISOPOL®-mats are laid loosely with the studs according to to below, the butt joints are butted tightly. Before concreting rats are die ISOPOL®-mats are protected with 2 layers of tough PE film (0.2 mm) and glued so that they are watertight.
superstructure	Concrete or subfloors with a flowable consistency as well as aerated concrete are only suitable to a limited extent and require additional, special sealing measures
processing instructions	The installation of ISOPOL® mats should only be carried out by trained personnel. When using auxiliary products, such as adhesives, the ambient temperature and humidity must meet the requirements of the auxiliary products used. The corresponding product data mats must be considered.

### SAFETY / HEALTH

safety notice	Local safety requirements must be considered.
transport class	ISOPOL® mats are not classified as hazardous substances in the sense of the ADR.
disposal	ISOPOL® mats are recyclable. Waste code according to European Waste Catalogue Regulation: 19 12 04. Local requirements regarding disposal must be considered.

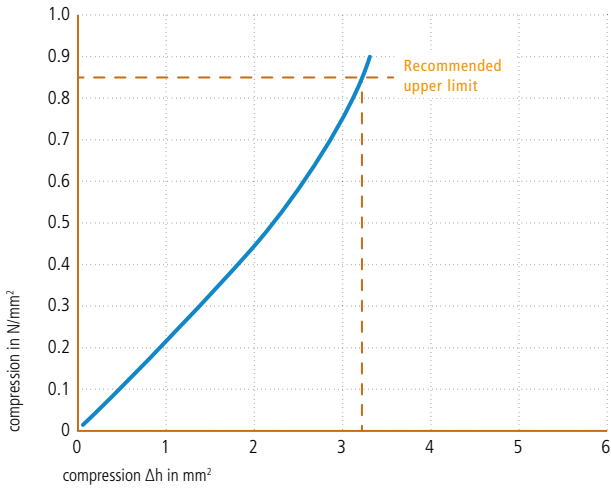
<sup>(1)</sup> The values determined refer exclusively to the test setup in the acoustics laboratory: 240 mm thick concrete ceiling, ISOPOL® mats, concrete slab 300 kg/m<sup>2</sup>, not glued, with surface correction.

# ISOPOL® rubber granulate mats 330-20

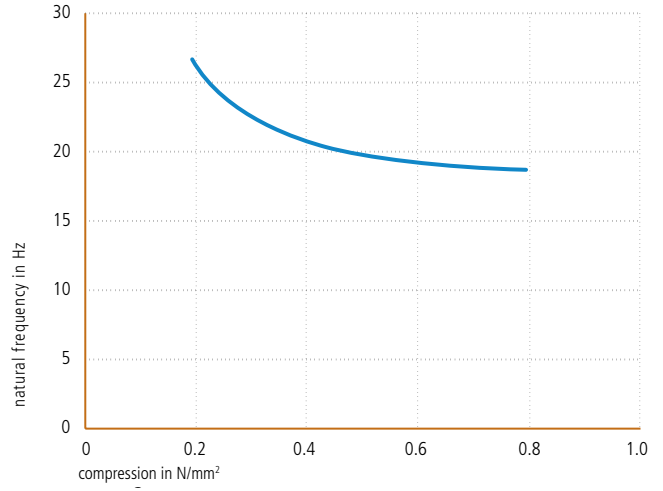
High-quality rubber granulate mats for structure-borne sound insulation and impact sound reduction

Material characteristics determined by the Technical University of Munich, on behalf of HBT-ISOL (according to DIN 45673-7)

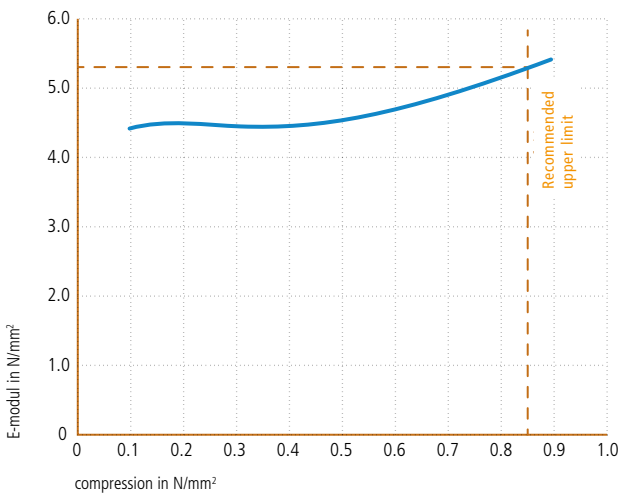
## compression



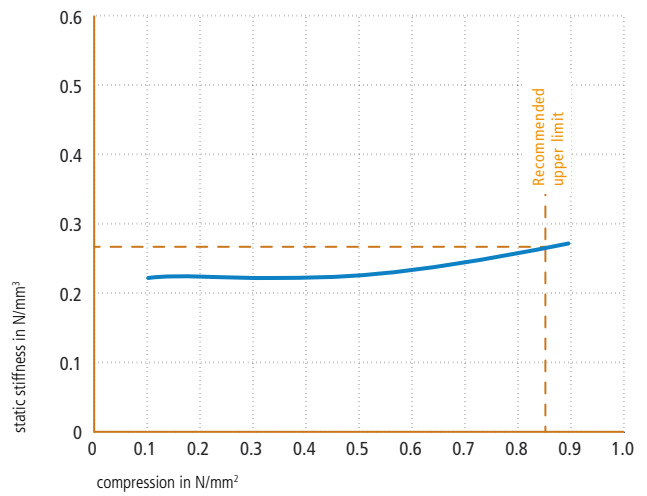
## natural frequency



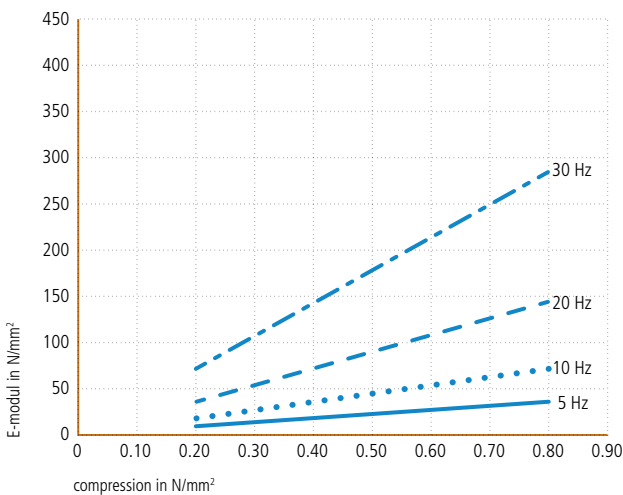
## static modulus of elasticity



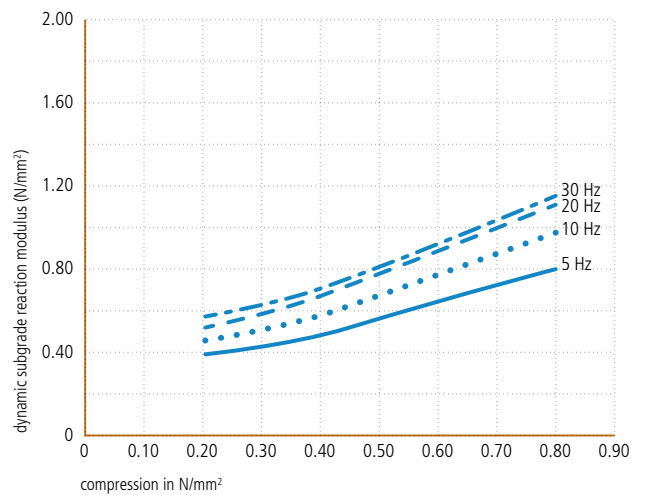
## static stiffness



## dynamic modulus of elasticity



## dynamic stiffness



## ISOPOL® rubber granulate mats 330-30

High-quality rubber granulate mats for structure-borne sound insulation and impact sound reduction

### MATERIAL

ISOPOL®-330-30 rubber granulate mats are manufactured from recycled rubber granules. For this purpose, technically high-quality rubber granules are compressed with the addition of a PU binder.



### APPLICATION AREA

ISOPOL®-330-30 rubber granulate mats are used for structure-borne sound and impact sound reduction and separation of buildings, parts of buildings (e.g. underlays/load distribution plates for mixed residential/commercial uses) and machine foundations. ISOPOL® mats meet the highest demands and are particularly suitable if a bearing is to achieve high insulation values at medium loads or if exact loads cannot be determined.

### FEATURES

- 100% recyclable	- self-draining	- extremely robust and durable
- high homogeneity	- low creep behaviour	- stable against weak acids and alkalis
- moisture resistant	- high resilience	- permanently elastic and rot-proof

### PRODUCT-/LOGISTICS DATA

colour	black
form	mats, both sides flat
thickness	30 ± 1 mm
length x width	1'000 x 500 mm
weight per surface	ca. 27.0 kg/m <sup>2</sup>
warehousing	store in a dry place, do not expose to direct sunlight
storage period	with correct storage almost unrestricted

### TECHNICAL DATA

impact sound reduction	≥ 16 dB <sup>(1)</sup>
compression	0.90 N/mm <sup>2</sup> , 900 kN/m <sup>2</sup> (recommended upper limit at use level)
compression	10% at ca. 0.48 N/mm <sup>2</sup> , 15% at ca. 0.80 N/mm <sup>2</sup>
fire reaction class	E <sub>fl,r</sub> (according to EN 13501-1)
temperature resistance	long-term: - 40°C to + 80°C, short-term: to + 110°C
thermal conductivity	0.17 W/mK

### PROCESSING

ground / subfloor	Direct contact of ISOPOL® mats with materials containing plasticisers must be avoided (use separating layer). Requirements of bearing surface: Load-bearing capacity > compression der ISOPOL®-mats. No loose components. Free of excess teeth and gravel pockets. Flatness under 2 m lath ≤ 10 mm, at > 10 mm reprofile. Broom clean. (Norm SIA-271:2007)
installation	The ISOPOL®-mats are laid loosely with the studs according to to below, the butt joints are butted tightly. Before concreting rats are die ISOPOL®-mats are protected with 2 layers of tough PE film (0.2 mm) and glued so that they are watertight.
superstructure	Concrete or subfloors with a flowable consistency as well as aerated concrete are only suitable to a limited extent and require additional, special sealing measures
processing instructions	The installation of ISOPOL® mats should only be carried out by trained personnel. When using auxiliary products, such as adhesives, the ambient temperature and humidity must meet the requirements of the auxiliary products used. The corresponding product data mats must be considered.

### SAFETY / HEALTH

safety notice	Local safety requirements must be considered.
transport class	ISOPOL® mats are not classified as hazardous substances in the sense of the ADR.
disposal	ISOPOL® mats are recyclable. Waste code according to European Waste Catalogue Regulation: 19 12 04. Local requirements regarding disposal must be considered.

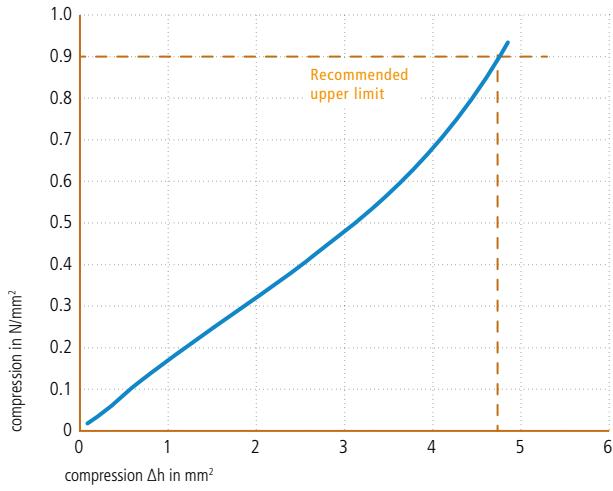
<sup>(1)</sup> The values determined refer exclusively to the test setup in the acoustics laboratory: 240 mm thick concrete ceiling, ISOPOL® mats, concrete slab 300 kg/m<sup>2</sup>, not glued, with surface correction.

## ISOPOL® rubber granulate mats 330-30

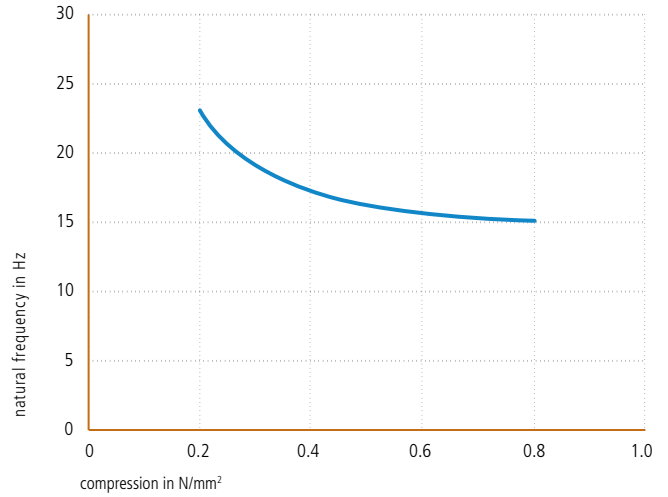
High-quality rubber granulate mats for structure-borne sound insulation and impact sound reduction

Material characteristics determined by the Technical University of Munich, on behalf of HBT-ISOL (according to DIN 45673-7)

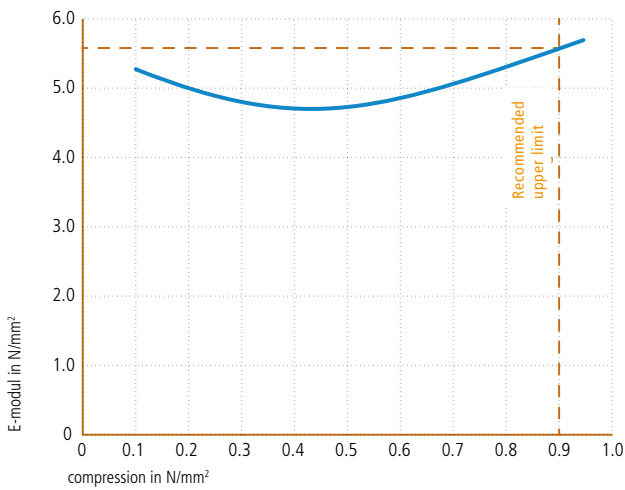
### compression



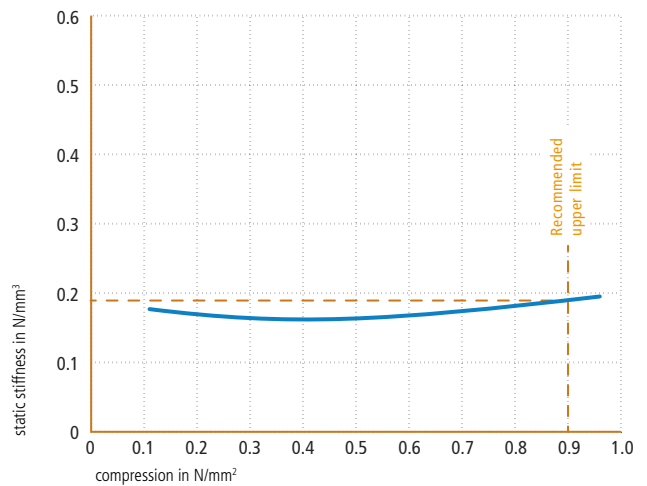
### natural frequency



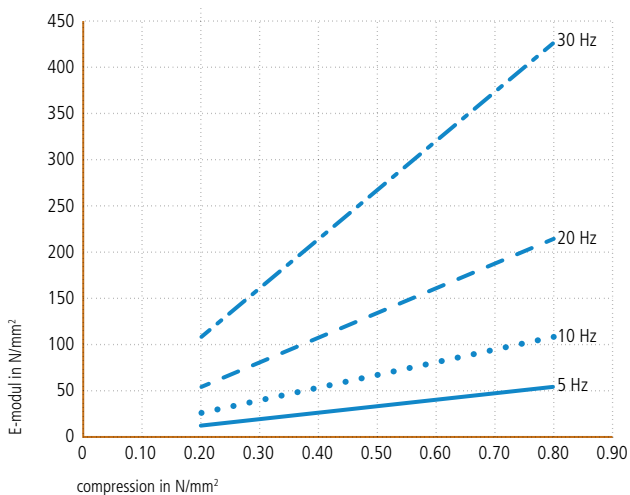
### static modulus of elasticity



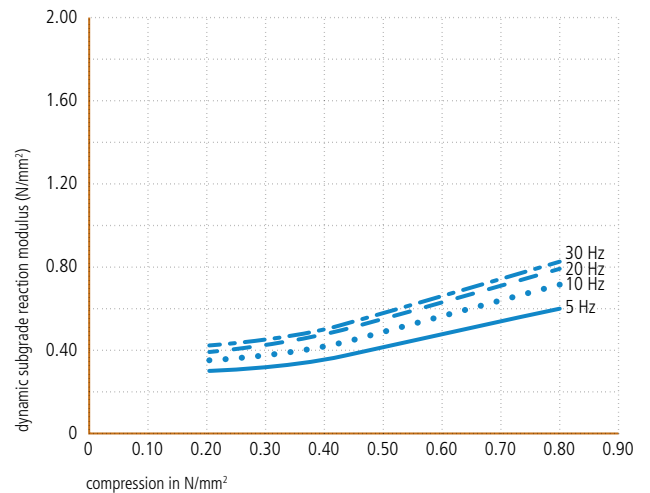
### static stiffness



### dynamic modulus of elasticity



### dynamic stiffness



## ISOPOL® rubber granulate mats 510-10

High-quality rubber granulate mats for structure-borne sound insulation and impact sound reduction

### MATERIAL

ISOPOL®-510-10 rubber granulate mats are manufactured from recycled rubber granules. For this purpose, technically high-quality rubber granules are compressed with the addition of a PU binder.



### APPLICATION AREA

ISOPOL®-510-10 rubber granulate mats are used for structure-borne sound and impact sound reduction and separation of buildings, parts of buildings (e.g. underlays/load distribution plates for mixed residential/commercial uses) and machine foundations. ISOPOL® mats meet the highest demands and are particularly suitable if a bearing is to achieve high insulation values at medium loads or if exact loads cannot be determined.

### FEATURES

- 100% recyclable	- self-draining	- extremely robust and durable
- high homogeneity	- low creep behaviour	- stable against weak acids and alkalis
- moisture resistant	- high resilience	- permanently elastic and rot-proof

### PRODUCT-/LOGISTICS DATA

colour	black
form	mats, both sides flat
thickness	10 ± 2 mm
length x width	1'050 x 980 mm
weight per surface	ca. 11.5 kg/m <sup>2</sup>
warehousing	store in a dry place, do not expose to direct sunlight
storage period	with correct storage almost unrestricted

### TECHNICAL DATA

impact sound reduction	In Kombination mit anderen ISOPOL®-Typen
compression	2.00 N/mm <sup>2</sup> , 2'000 kN/m <sup>2</sup> (recommended upper limit at use level)
compression	5.0% at ca. 0.80 N/mm <sup>2</sup> , 7.5% at ca. 1.80 N/mm <sup>2</sup>
fire reaction class	E <sub>fl,r</sub> (according to EN 13501-1)
temperature resistance	long-term: - 40°C to + 80°C, short-term: to + 110°C
thermal conductivity	0.22 W/mK

### PROCESSING

ground / subfloor	Direct contact of ISOPOL® mats with materials containing plasticisers must be avoided (use separating layer). Requirements of bearing surface: Load-bearing capacity > compression der ISOPOL®-mats. No loose components. Free of excess teeth and gravel pockets. Flatness under 2 m lath ≤ 10 mm, at > 10 mm reprofile. Broom clean. (Norm SIA-271:2007)
installation	The ISOPOL®-mats are laid loosely with the studs according to to below, the butt joints are butted tightly. Before concreting rats are die ISOPOL®-mats are protected with 2 layers of tough PE film (0.2 mm) and glued so that they are watertight.
superstructure	Concrete or subfloors with a flowable consistency as well as aerated concrete are only suitable to a limited extent and require additional, special sealing measures
processing instructions	The installation of ISOPOL® mats should only be carried out by trained personnel. When using auxiliary products, such as adhesives, the ambient temperature and humidity must meet the requirements of the auxiliary products used. The corresponding product data mats must be considered.

### SAFETY / HEALTH

safety notice	Local safety requirements must be considered.
transport class	ISOPOL® mats are not classified as hazardous substances in the sense of the ADR.
disposal	ISOPOL® mats are recyclable. Waste code according to European Waste Catalogue Regulation: 19 12 04. Local requirements regarding disposal must be considered.

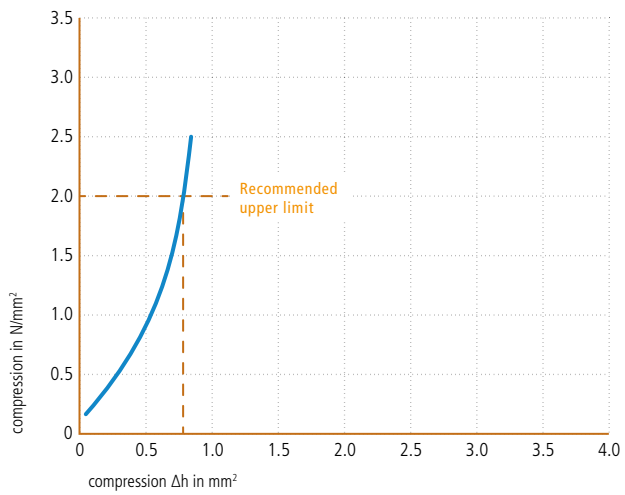


## ISOPOL® rubber granulate mats 510-10

High-quality rubber granulate mats for structure-borne sound insulation and impact sound reduction

Material characteristics determined by the Technical University of Munich, on behalf of HBT-ISOL (according to DIN 45673-7)

### compression



## ISOPOL® rubber granulate mats 510-20

High-quality rubber granulate mats for structure-borne sound insulation and impact sound reduction

### MATERIAL

ISOPOL®-510-20 rubber granulate mats are manufactured from recycled rubber granules. For this purpose, technically high-quality rubber granules are compressed with the addition of a PU binder.



### APPLICATION AREA

ISOPOL®-510-20 rubber granulate mats are used for structure-borne sound and impact sound reduction and separation of buildings, parts of buildings (e.g. underlays/load distribution plates for mixed residential/commercial uses) and machine foundations. ISOPOL® mats meet the highest demands and are particularly suitable if a bearing is to achieve high insulation values at medium loads or if exact loads cannot be determined.

### FEATURES

- 100% recyclable	- self-draining	- extremely robust and durable
- high homogeneity	- low creep behaviour	- stable against weak acids and alkalis
- moisture resistant	- high resilience	- permanently elastic and rot-proof

### PRODUCT-/LOGISTICS DATA

colour	black
form	mats, both sides flat
thickness	20 ± 2 mm
length x width	1'000 x 500 mm
weight per surface	ca. 23.0 kg/m <sup>2</sup>
warehousing	store in a dry place, do not expose to direct sunlight
storage period	with correct storage almost unrestricted

### TECHNICAL DATA

impact sound reduction	In Kombination mit anderen ISOPOL®-Typen
compression	2.25 N/mm <sup>2</sup> , 2'250 kN/m <sup>2</sup> (recommended upper limit at use level)
compression	5.0% at ca. 0.80 N/mm <sup>2</sup> , 7.5% at ca. 1.50 N/mm <sup>2</sup>
fire reaction class	E <sub>fl</sub> (according to EN 13501-1)
temperature resistance	long-term: - 40°C to + 80°C, short-term: to + 110°C
thermal conductivity	0.22 W/mK

### PROCESSING

ground / subfloor	Direct contact of ISOPOL® mats with materials containing plasticisers must be avoided (use separating layer). Requirements of bearing surface: Load-bearing capacity > compression der ISOPOL®-mats. No loose components. Free of excess teeth and gravel pockets. Flatness under 2 m lath ≤ 10 mm, at > 10 mm reprofile. Broom clean. (Norm SIA-271:2007)
installation	The ISOPOL®-mats are laid loosely with the studs according to to below, the butt joints are butted tightly. Before concreting rats are die ISOPOL®-mats are protected with 2 layers of tough PE film (0.2 mm) and glued so that they are watertight.
superstructure	Concrete or subfloors with a flowable consistency as well as aerated concrete are only suitable to a limited extent and require additional, special sealing measures
processing instructions	The installation of ISOPOL® mats should only be carried out by trained personnel. When using auxiliary products, such as adhesives, the ambient temperature and humidity must meet the requirements of the auxiliary products used. The corresponding product data mats must be considered.

### SAFETY / HEALTH

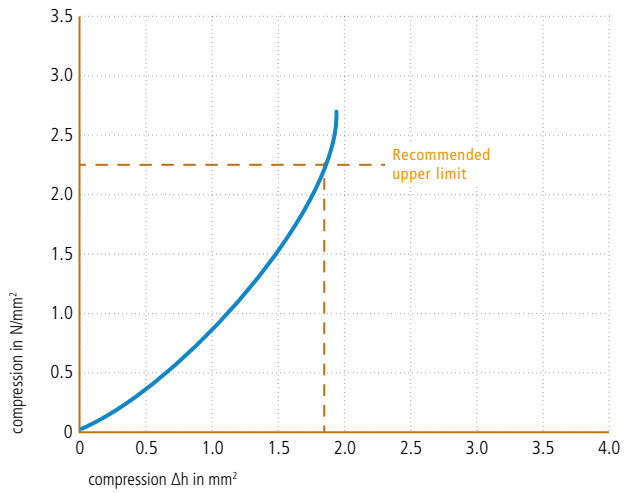
safety notice	Local safety requirements must be considered.
transport class	ISOPOL® mats are not classified as hazardous substances in the sense of the ADR.
disposal	ISOPOL® mats are recyclable. Waste code according to European Waste Catalogue Regulation: 19 12 04. Local requirements regarding disposal must be considered.

## ISOPOL® rubber granulate mats 510-20

High-quality rubber granulate mats for structure-borne sound insulation and impact sound reduction

Material characteristics determined by the Technical University of Munich, on behalf of HBT-ISOL (according to DIN 45673-7)

### compression



## ISOPOL® rubber granulate mats 510-30

High-quality rubber granulate mats for structure-borne sound insulation and impact sound reduction

### MATERIAL

ISOPOL®-510-30 rubber granulate mats are manufactured from recycled rubber granules. For this purpose, technically high-quality rubber granules are compressed with the addition of a PU binder.



### APPLICATION AREA

ISOPOL®-510-30 rubber granulate mats are used for structure-borne sound and impact sound reduction and separation of buildings, parts of buildings (e.g. underlays/load distribution plates for mixed residential/commercial uses) and machine foundations. ISOPOL® mats meet the highest demands and are particularly suitable if a bearing is to achieve high insulation values at medium loads or if exact loads cannot be determined.

### FEATURES

- 100% recyclable	- self-draining	- extremely robust and durable
- high homogeneity	- low creep behaviour	- stable against weak acids and alkalis
- moisture resistant	- high resilience	- permanently elastic and rot-proof

### PRODUCT-/LOGISTICS DATA

colour	black
form	mats, both sides flat
thickness	30 ± 2 mm
length x width	1'000 x 500 mm
weight per surface	ca. 34.5 kg/m <sup>2</sup>
warehousing	store in a dry place, do not expose to direct sunlight
storage period	with correct storage almost unrestricted

### TECHNICAL DATA

impact sound reduction	In Kombination mit anderen ISOPOL®-Typen
compression	2.50 N/mm <sup>2</sup> , 2'500.0 kN/m <sup>2</sup> (recommended upper limit at use level)
compression	5.0% at ca. 0.90 N/mm <sup>2</sup> , 7.5% at ca. 1.50 N/mm <sup>2</sup>
fire reaction class	E <sub>fl,r</sub> (according to EN 13501-1)
temperature resistance	long-term: - 40°C to + 80°C, short-term: to + 110°C
thermal conductivity	0.22 W/mK

### PROCESSING

ground / subfloor	Direct contact of ISOPOL® mats with materials containing plasticisers must be avoided (use separating layer). Requirements of bearing surface: Load-bearing capacity > compression der ISOPOL®-mats. No loose components. Free of excess teeth and gravel pockets. Flatness under 2 m lath ≤ 10 mm, at > 10 mm reprofile. Broom clean. (Norm SIA-271:2007)
installation	The ISOPOL®-mats are laid loosely with the studs according to to below, the butt joints are butted tightly. Before concreting rats are die ISOPOL®-mats are protected with 2 layers of tough PE film (0.2 mm) and glued so that they are watertight.
superstructure	Concrete or subfloors with a flowable consistency as well as aerated concrete are only suitable to a limited extent and require additional, special sealing measures
processing instructions	The installation of ISOPOL® mats should only be carried out by trained personnel. When using auxiliary products, such as adhesives, the ambient temperature and humidity must meet the requirements of the auxiliary products used. The corresponding product data mats must be considered.

### SAFETY / HEALTH

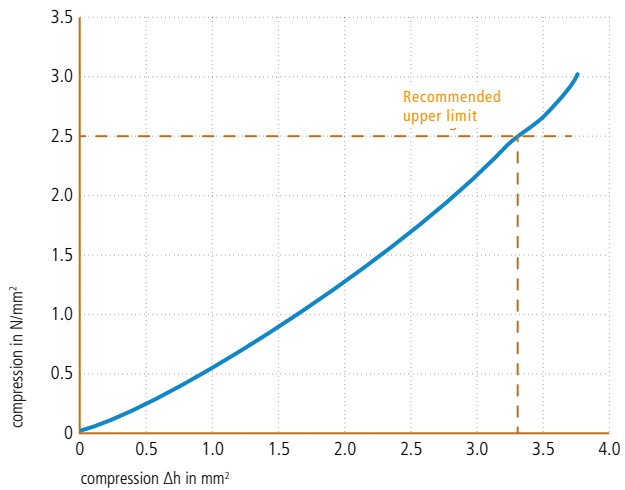
safety notice	Local safety requirements must be considered.
transport class	ISOPOL® mats are not classified as hazardous substances in the sense of the ADR.
disposal	ISOPOL® mats are recyclable. Waste code according to European Waste Catalogue Regulation: 19 12 04. Local requirements regarding disposal must be considered.

## ISOPOL® rubber granulate mats 510-30

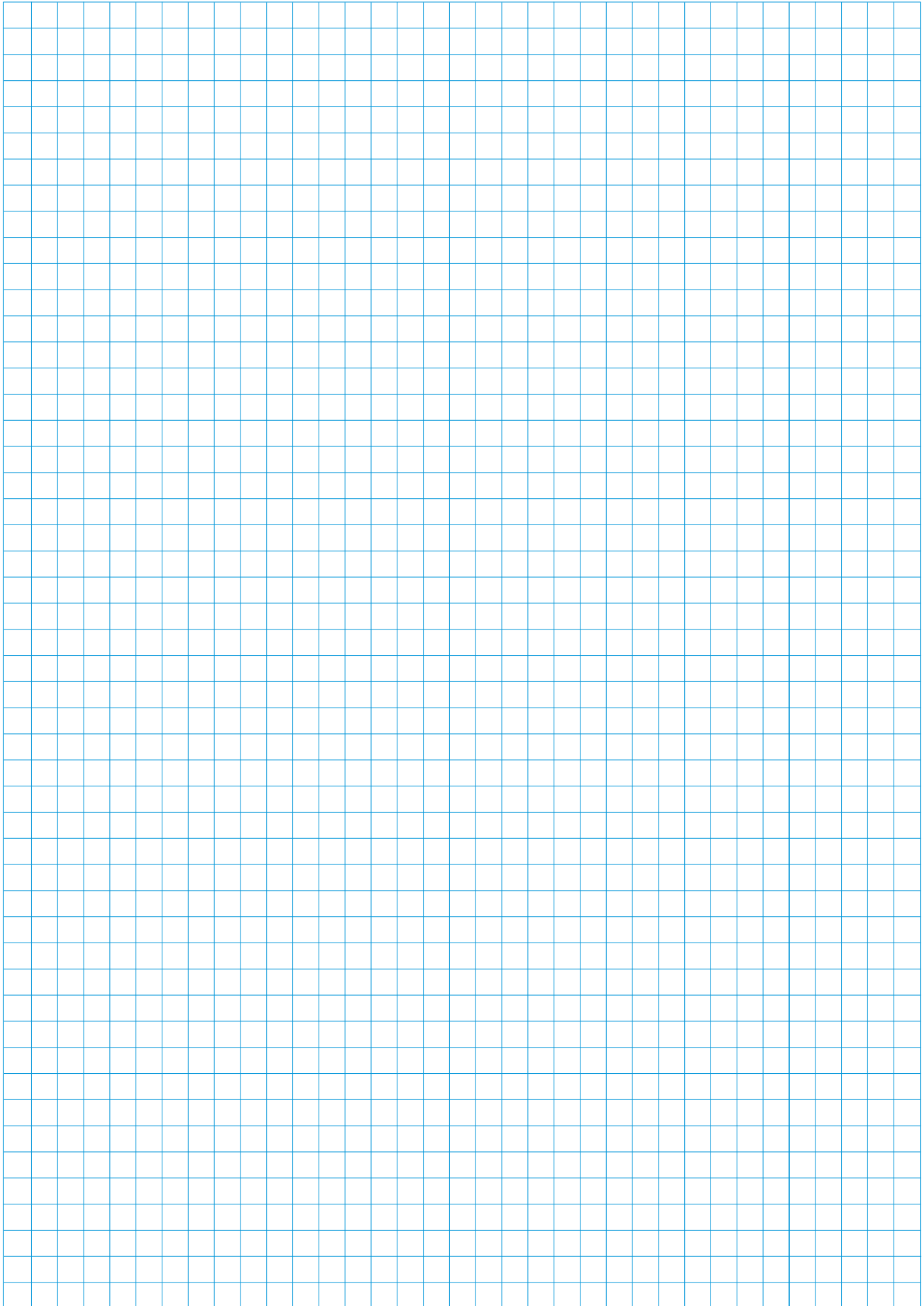
High-quality rubber granulate mats for structure-borne sound insulation and impact sound reduction

Material characteristics determined by the Technical University of Munich, on behalf of HBT-ISOL (according to DIN 45673-7)

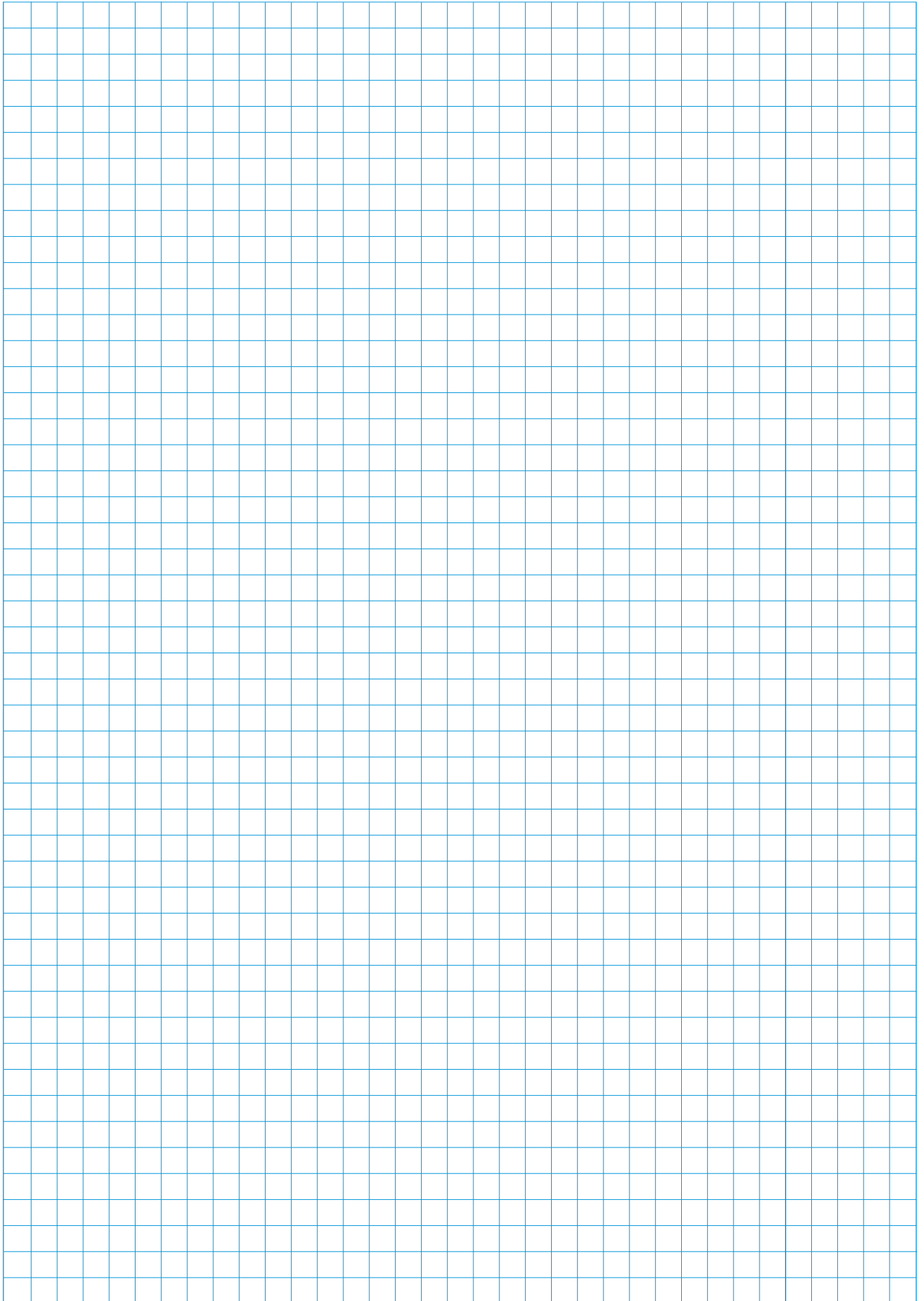
### compression



## Notices



## Notices



# Expertise for your construction project

HBT-ISOL's innovative soundproofing solutions protect buildings, building users and occupants from internal and external sound and vibration.

- protection for people and buildings from vibrations from rail traffic
- effective insulation of structure-borne sound in mixed use buildings, such as residential-shopping, offices-commercial, gymnastics above classrooms, etc.
- impact sound insulation in staircases
- vibration and structure-borne sound insulation for HVAC
- crack-reduction and sound insulation between walls and ceilings
- structure-borne sound insulating fixings
- vibration protection for production plants

First-class products, many years of experience and personalised support from conception to execution guarantee clients, building planners and building contractors economic efficiency and technical safety.

## Structure-borne sound insulation and impact sound reduction

ISOPOL® rubber granulate mats



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