

### ACOUSTICS AND VIBRATION ISOLATION

COMPLETE ACOUSTIC SOLUTIONS FOR URBAN AREAS



EN #1 | 2023



Offices



Gyms



Concert halls, Cinemas, Muse<u>ums</u> Schools, Training

centres



Recording studios, Acoustics testing laboratories

30

ELE E

WAR WAR STRATE

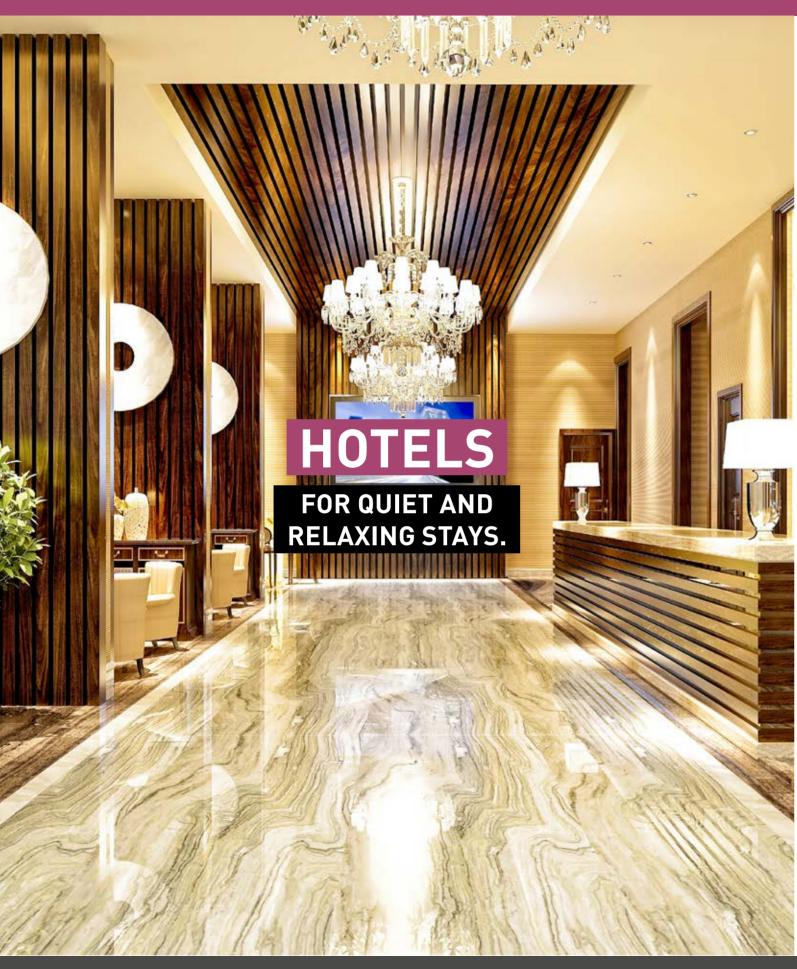


Public buildings

Hotels

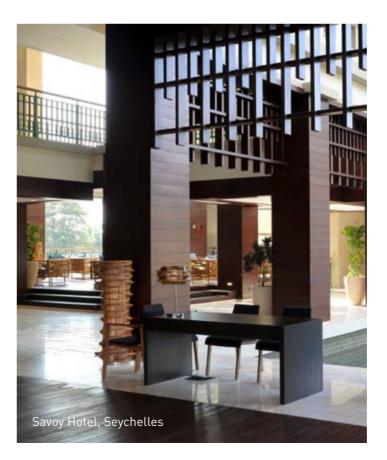
Living space, commercial areas, shopping areas, hotels and industry are moving ever closer together. Effective impact sound insulation is therefore elementarily important for physical and mental well-being. DAMTEC® offers solutions for all industries and areas of application.







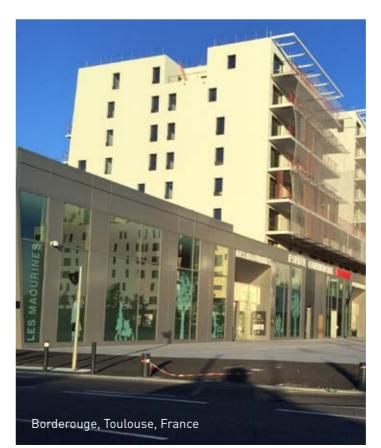




Reference	Product
Crown Plaza Hotels Istan- bul, Doha, Abu Dhabi	different products
Grand Hyatt Hotel Doha	DAMTEC® estra
Savoy Hotel Seychelles	DAMTEC® estra
Hilton Hotels Melbourne, Tallin, Colombo, Istanbul	different products
Kempinski Hotel Falkenstein (Königstein)	DAMTEC® Resistant cork G
Hotel ViennArt	DAMTEC® standard pur
Radisson Blue Hotel	DAMTEC® black uni B1
Steigenberger Parkhotel Düsseldorf	DAMTEC® black uni B1
Astir Palace Athens	DAMTEC® wave 3D 8/4, 17/8,
	DAMTEC® standard DAMTEC® vibra medium
Oberoi Hotel Udaipur	DAMTEC® standard
Hotel Kursaal Montecatini Therme, Italy	DAMTEC® spezial
Intercontinental Hotel Doha	DAMTEC® estra
Sea Pearl Istanbul	DAMTEC® basic light / 3D
Palazzo Versace Dubai	DAMTEC® standard
Sheraton Jumeirah Beach Resort, Dubai	DAMTEC® standard
Lazzoni Hotel Istanbul	DAMTEC® vibra medium, vibrafoam
Sheraton Grand Samsun, Turkey	DAMTEC® vibra medium, multi
Bakirköy Hotel Istanbul	DAMTEC® multi
Aloft Hotel Abu Dhabi	DAMTEC® estra
Jumeirah Beach Hotel Dubai	DAMTEC® vibra medium
Marriott Hotel Tirana	DAMTEC® standard







## SUPERMARKETS & SHOPS

COMBINING PLEASANT LIVING AND SHOPPING IN THE CITY.

#### Selected retail references

Reference	Product
Lidl supermarkets	different products
Netto supermarkets	different products
REWE supermarkets	different products
Aldi supermarkets	different products
Penny supermarkets	different products
Merkur supermarkets	different products
Super U supermarkets	different products
Carrefour supermarkets	DAMTEC® 3D 17/8 DAMTEC® wave 3D 17/8
Monoprix markets	DAMTEC® 3D 17/8 DAMTEC® wave 3D 17/8
Eurovea Galleria, Bratis- lava, Slovakia	DAMTEC® estra
Migros supermarkets	DAMTEC® vibra soft, medium, ultra
Mall of Ostan Dala	

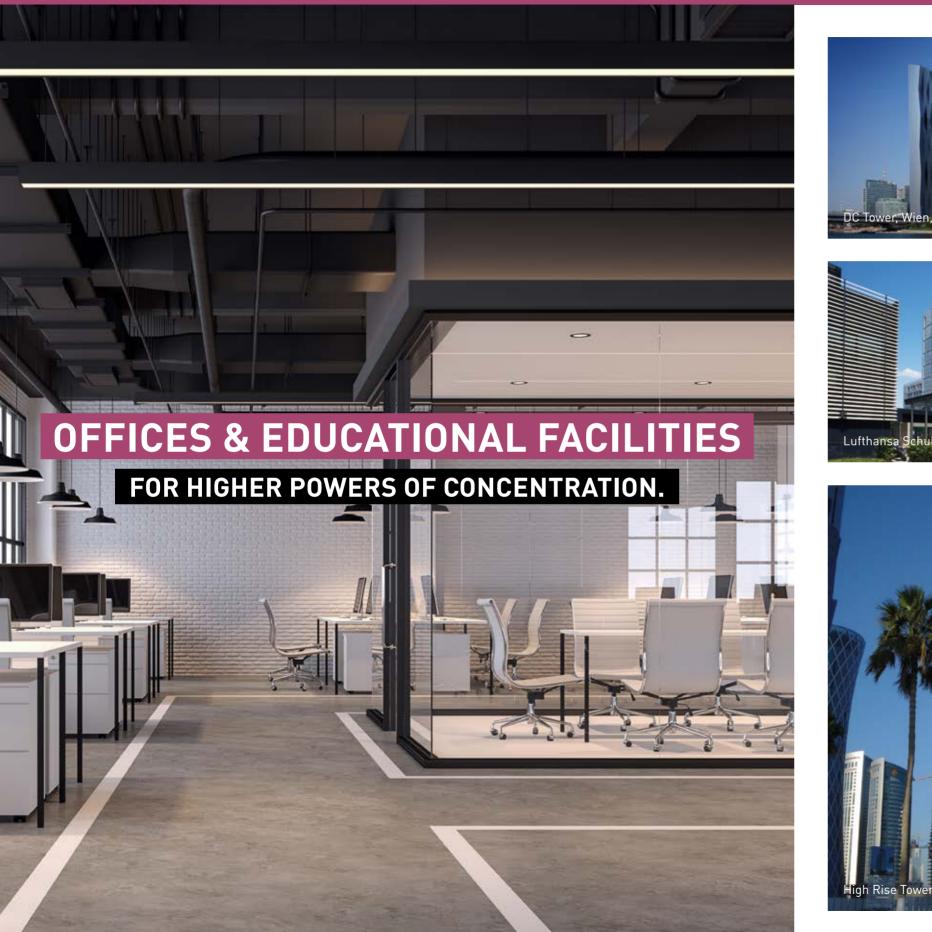
Mall of Qatar, Doha

DAMTEC® vibrafoam





**ACOUSTICS AND VIBRATION ISOLATION FOR:** 









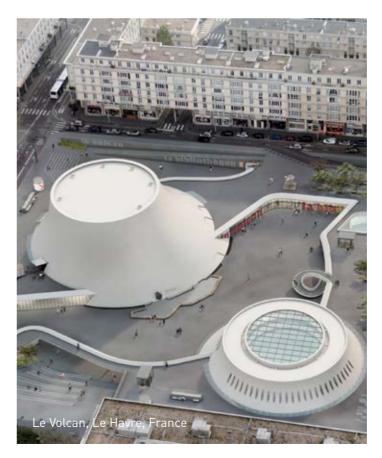
Reference	Product
DC 3 Tower, Vienna	DAMTEC® 3D 17/8 DAMTEC® vibra 3D
University Kolding, Denmark	DAMTEC® black uni
Vittel Headquarter, France	DAMTEC <sup>®</sup> pur
Skygarden Munich	DAMTEC® 3 D 17/9 DAMTEC® estra
T-Mobile Headquarter Cologne	DAMTEC® standard
Allianz Headquarter Munich	DAMTEC® whisper
Arnulfpark Munich	DAMTEC® estra
BMW Headquarter	DAMTEC® resistant cork
State Parliament of Lower Saxony	DAMTEC® wave 3D 8/4
German Bundesbank	DAMTEC® 3D 17/8
High Rise Office Building Doha, Qatar	DAMTEC® standard
Singapore Power HQ	DAMTEC® estra
Princess Nora Bint Abdul- rahman University, Saudi Arabia	DAMTEC® estra
Lufthansa Training centre, Seeheim, Germany	DAMTEC® vibra 3D 17/9
University Leipzig	DAMTEC® vibra 3D 17/9
TU Dresden	DAMTEC® vibra soft
University Heidenheim	DAMTEC® vibra soft
Alfred-Wegener Institute, Bremerhaven	DAMTEC® estra
Nazarbayev University, Kazakhstan	DAMTEC® vibra medium
Commercial Bank Plaza, Doha	DAMTEC® estra
Palladium Tower Istanbul	DAMTEC® vibra medium, vibrafoam
University Kaiserslautern II	DAMTEC® estra 3D 8/4

#### **ACOUSTICS AND VIBRATION ISOLATION FOR:**

## **PUBLIC BUILDINGS** FOR A PLEASANT STAY.

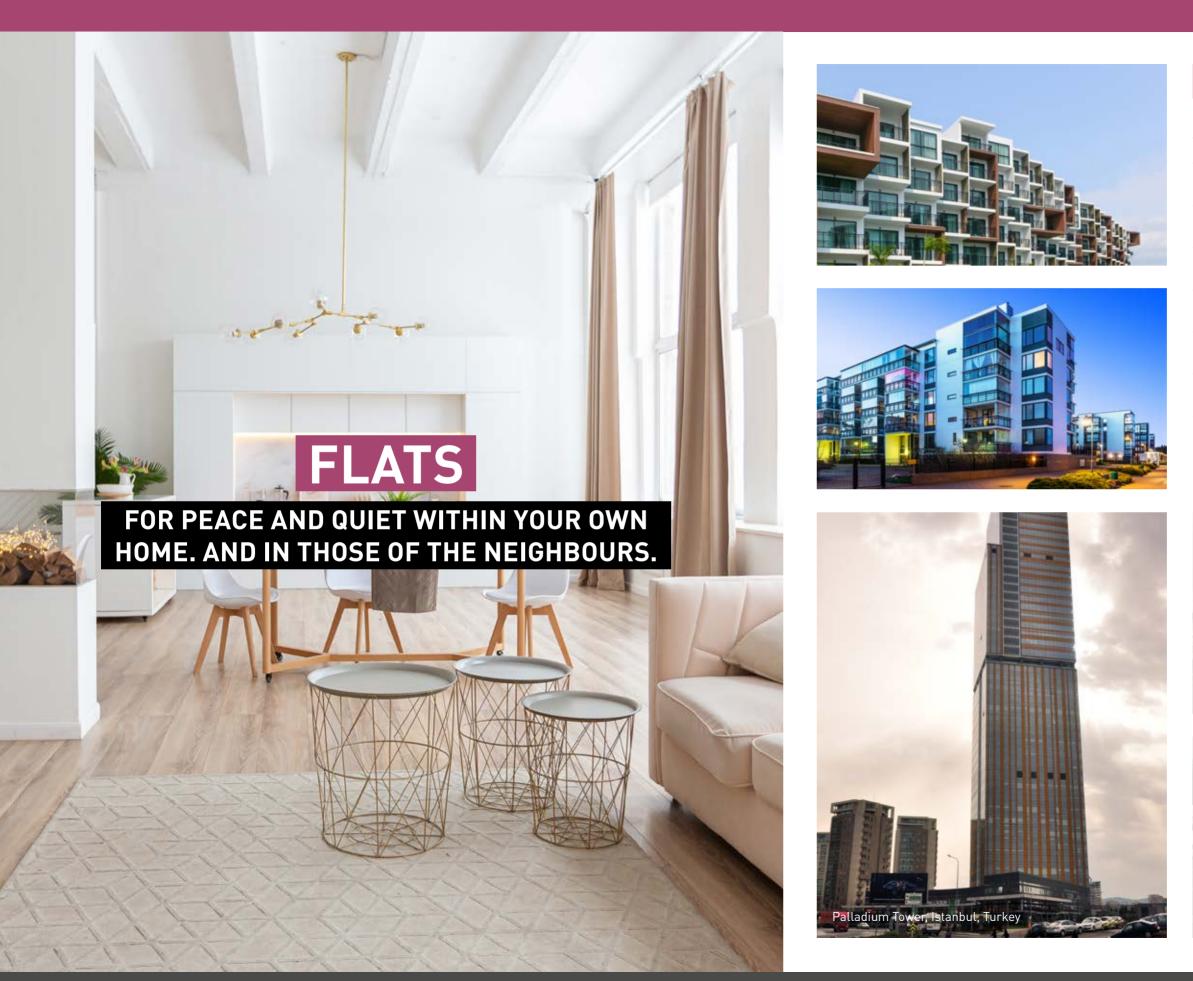






Reference	Product
Royal Melbourne Child- rens Hospital	DAMTEC® standard
Casino Nanterre, France	DAMTEC® wave 3D 17/8
Casino Venissieux, France	DAMTEC® 3D 17/8 2x
Casino Auzeville, France	DAMTEC® 3D 25/7 2x
Casino Sathonay, France	DAMTEC® 3D 17/8 2x
Casino Blagnac, France	DAMTEC® 3D 25/7 2x
Musée Lalique, Wingen sur Moder, France	DAMTEC® vibra 3D 17/9 DAMTEC® vibra soft 15mm
Musée des Confluences	DAMTEC® 3 D 17/9
St. Johannes Hospital Dortmund	DAMTEC® estra
Hospital Leverkusen	DAMTEC® estra
Hospital Trier	DAMTEC® estra
Hospital Essen	DAMTEC® estra
Berliner State Library	DAMTEC® estra
Hospital Eisenstadt	DAMTEC® 3 D 17/9
Fraunhofer Institute Test lab, Leipzig	DAMTEC® estra 3 D 8/4
Qatar National Convention Centre Doha	DAMTEC® estra
Askabat Interational Air- port (Turkmenistan)	DAMTEC® vibra medium
Airport Mönchengladbach	DAMTEC® wave 3D 8/4
Airport business center 4 Stuttgart	DAMTEC® estra

#### **ACOUSTICS AND VIBRATION ISOLATION FOR:**



Reference	Product
Reef Island Bahrain	DAMTEC® estra 4 mm
Cranachhöfe City Apart- ments Essen	DAMTEC® wave 3D 17/8
Wembley City Regenerati- on, London	DAMTEC® standard eco
Nurol Tower Istanbul	DAMTEC® vibra medium, vibrafoam
Elm Apartments Mel- bourne	DAMTEC® standard
Treasury Residences Canberra	DAMTEC® standard
Quartier Neumarkt / Hamburg	DAMTEC® 3D 17/8
Emaar Square North Tower Istanbul	DAMTEC® multi







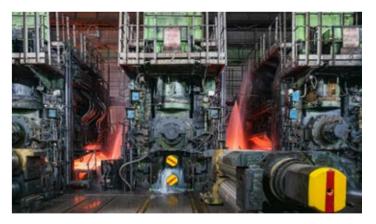




# INDUSTRY

DECOUPLING OF THE BUILDING AND MACHINE FOUNDATIONS.

Reference	Product
Domark Industries	DAMTEC® vibra 3D 25/7
Airbus hall 60, Stade	DAMTEC® vibra 3D 17/9
Bearings for a wide va- riety of machines/equip- ment: • Ventilation systems • heating systems • server rooms • Pressing and punching machines • Polishing machines • generators • compressors • all machines that cause strong vibrations	Product individual accor- ding to requirement





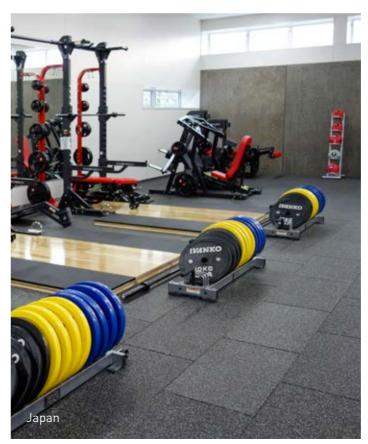
## DAMTEC® OSPORTEC®

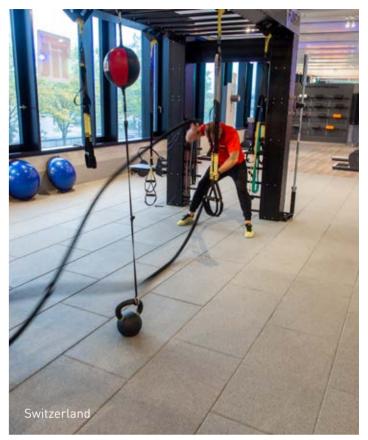
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## FOR TOP ATHLETIC PERFORMANCE AND MITIGATION OF NOISE PROBLEMS.















STRUCTURAL PROTECTION & IMPACT SOUND INSULATION.

EFTT

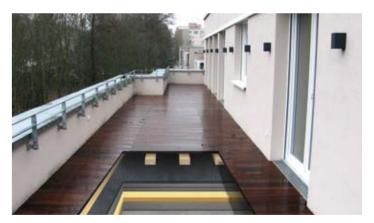






Schloss Elmau, Deutschland









Customised product developments possible!

Thickness

Tensile stru Elongation Flammabil Approval

ΔL<sub>w</sub>



	DAMTEC® black uni	DAMTEC® black uni B1	DAMTEC® standard
;	2, 3, 4, 5, 6 mm (± 0.3 mm)	2, 3, 4, 5, 6 (± 0.3 mm)	2, 3, 4, 5, 6 mm (± 0.3 mm)
	19-25 dB	19-25 dB	18-20 dB
rength	0.7 - 1.4 N/mm²	0.7 - 0.8 N/mm²	> 0.5 N/mm²
n at break	20 - 50 %	20 - 50 %	> 20 %
ility rating	Е <sub>я</sub> (ISO 11925/EN 13501)	B <sub>ft</sub> (ISO 11925/EN 13501)	Е <sub>я</sub> (ISO 11925/EN 13501)

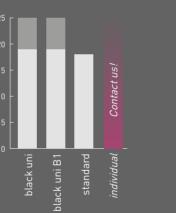
ETA - 18/1054

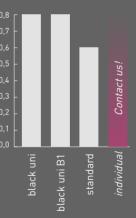
E

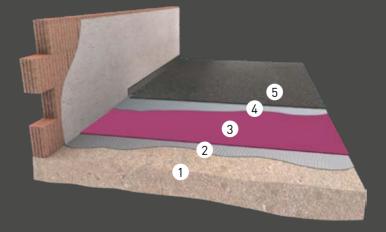
Values for impact sound insulation  $\Delta Lw$  depend on material thickness and floor covering used. Notes on the legal situation regarding Ü/CE marking on www.kraiburg-relastec.com/damtec/ce

#### Impact sound improvement ΔL<sub>w</sub> [dB]

#### Tensile strength [N/mm<sup>2</sup>]





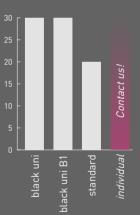








#### Elongation at break [%]



1 Subfloor
2 Adhesive
3 DAMTEC® pro
4 Adhesive
5 Floor covering

duct



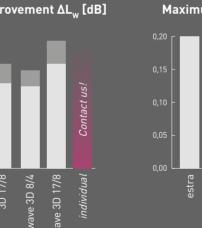
Customised product developments possible!



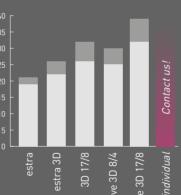


	DAMTEC® estra	DAMTEC® estra 3D 8/4
Thickness	4, 6, 8 mm (± 0.3 mm)	8/4 mm (± 1.0 mm)
ΔL <sub>w</sub>	19-21 dB	22 dB
Maximum pressure	0.20 N/mm²	0.10 N/mm <sup>2</sup>
Dynamic stiffness	≤ 90 MN/m³	< 20 MN/m³
Approval	<b>ETA</b> - 13/0342	<b>CE</b> ETA - 13/0572

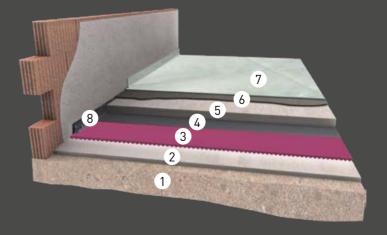
Values for impact sound insulation ΔLw and dynamic stiffness depend on material thickness, screed height and floor covering used. Notes on the legal situation regarding Ü/CE marking on www.kraiburg-relastec.com/damtec/ce



Impact sound improvement  $\Delta L_w$  [dB]





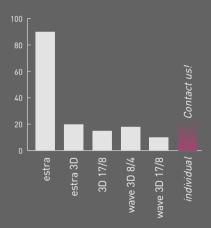


	RULE AND	EC Trus BLOW emission
DAMTEC® 3D 17/8	DAMTEC® wave 3D 8/4	DAMTEC® wave 3D 17/8
17/8 mm (± 1.0 mm)	8/4 mm (± 1.0 mm)	17/8 mm (± 1.0 mm)
26-34 dB	25-30 dB	32-39 dB
0.10 N/mm²	0.03 N/mm²	0.03 N/mm²
< 18 MN/m³	18 MN/m³	7 MN/m³
<b>ETA - 16/0481</b>	<b>ETA</b> - 15/0358	<b>ETA</b> - 15/0358



#### Maximum pressure [N/mm<sup>2</sup>]

Dynamic stiffness [MN/m<sup>3</sup>]

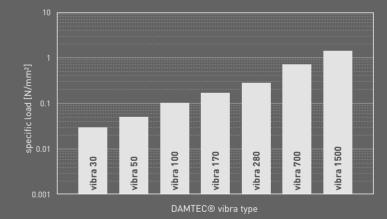


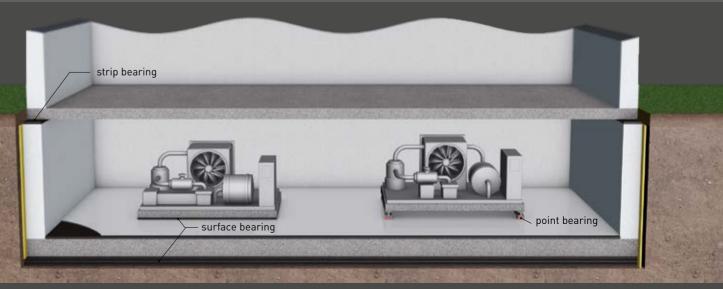
- 1 Subfloor
- 2 levelling layer (where neccessary)
- 3 DAMTEC® product
- 4 PE membrane
- 5 Screed
- 6 Adhesive
- 7 Floor covering
- 8 Edge strip (DAMTEC® estra)



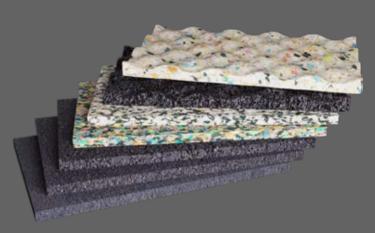
	DAMTEC® vibra 30	DAMTEC® vibra 50	DAMTEC® vibra 100	DAMTEC® vibra 170	DAMTEC® vibra 280	DAMTEC® vibra 700	DAMTEC® vibra 1500
Thickness	17/8 mm 25/7 mm	17/8 mm 25/7 mm	15, 20, 30 mm	15, 20, 30 mm	15, 20, 30 mm	15, 20 mm	10 mm
Maximum pressure	0.03 N/mm²	0.05 N/mm²	0.10 N/mm²	0.17 N/mm²	0.28 N/mm <sup>2</sup>	0.7 N/mm²	1.5 N/mm²
Tensile strength	0.15 - 0.65 N/mm²	> 0.2 N/mm²	0.15 - 0.7 N/mm²	0.15 - 0.55 N/mm²	> 0.5 N/mm²	> 0.5 N/mm²	> 1.5 N/mm²
Elongation at break	30 - 60 %	> 35 %	35 - 75 %	20 - 50 %	> 50 %	> 50 %	> 80 %
Load peak	0.07 N/mm²	0.15 N/mm <sup>2</sup>	0.30 N/mm²	0.70 N/mm²	1.50 N/mm²	3.00 N/mm²	4.00 N/mm <sup>2</sup>

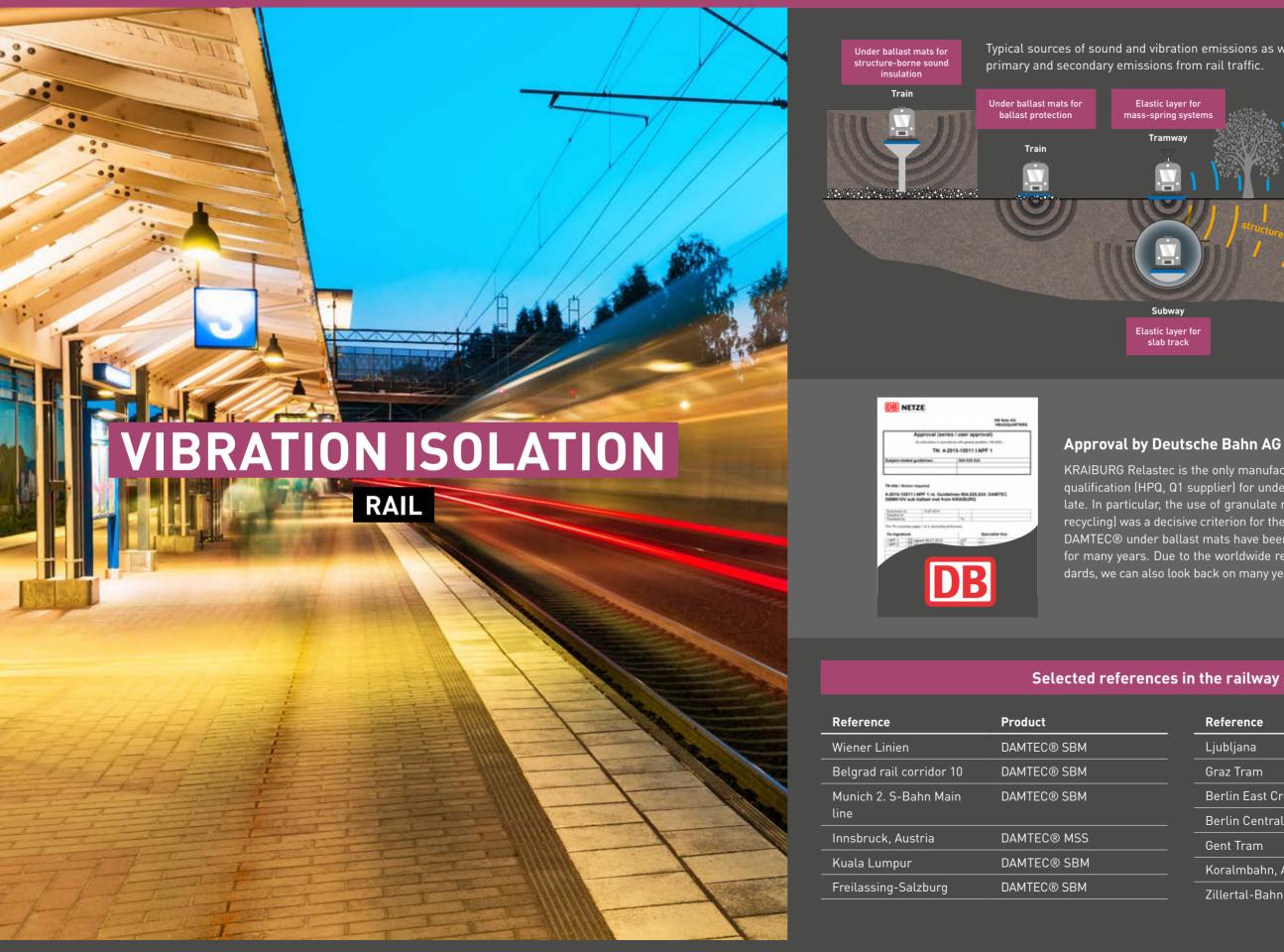
#### DAMTEC® vibra Working range



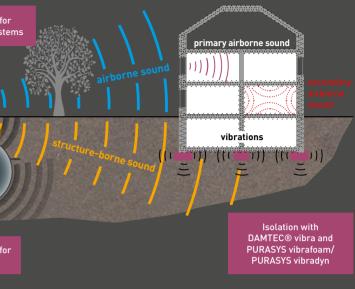


# VIBRATION ISOLATION BUILDINGS & INDUSTRY









KRAIBURG Relastec is the only manufacturer to have received Deutsche Bahn qualification (HPQ, Q1 supplier) for under ballast mats made of rubber granulate. In particular, the use of granulate made from virgin material (no old tyre recycling) was a decisive criterion for the approval.

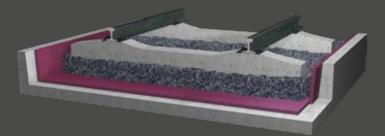
DAMTEC® under ballast mats have been successfully used in the DB network for many years. Due to the worldwide recognition of the Deutsche Bahn standards, we can also look back on many years of project experience abroad.

n	n the railway sector				
_	Reference	Product			
	Ljubljana	DAMTEC® SBM			
	Graz Tram	DAMTEC® SBM			
	Berlin East Cross	DAMTEC® SBM			
	Berlin Central station	DAMTEC® MSS			
	Gent Tram	DAMTEC® MSS			
	Koralmbahn, Austria	DAMTEC® MSS			
	Zillertal-Bahn	DAMTEC® SBM			

#### **ADVANTAGES OF DAMTEC® PRODUCTS**

#### **DAMTEC® SBM**

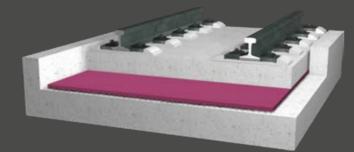
Under ballast mats



DAMTEC® SBM products are decoupling and protective mats under rail systems tested according to DIN 45673-5 (Mechanical vibrations - Elastic elements of the superstructure of rail tracks). They reduce structure-borne noise and secondary airborne sound as well as vibration emissions. In the case of ballasted track, the service life is extended by a lower and more uniform load. At the same time, they also protect engineering structures and seals.

#### **DAMTEC® MSS**

Full surface bearings for mass-spring systems



DAMTEC® MSS products are decoupling and protective mats under rail systems tested according to DIN 45673-7 (Mechanical vibration - Elastic elements of the superstructure of rail tracks). They reduce structure-borne and secondary airborne noise and vibration emissions when used in "slab track" (mass-spring system).

DAMTEC® MSS products are supplied in rolls. Mats are available on request.



environment-friendly







keep track position stable for longer period of time





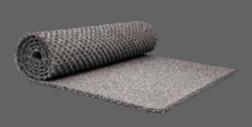


#### Products:

DAMTEC® SBM K 10 • K 10 V\* DAMTEC® SBM K 20 • K 20 V\* DAMTEC® SBM K 23 • K 23 V\*

#### Products with wave cut profile:

DAMTEC® SBM K 17/8 • K 17/8 V\* DAMTEC® SBM K 25/7 • K 25/7 V\* \* fleece-laminated variant



Products: DAMTEC® MSS K 10 DAMTEC® MSS K 20 DAMTEC® MSS K 23

#### Products with wave cut profile:

DAMTEC® MSS K 17/8 DAMTEC® MSS K 25/7



easy installation

protect the sensitive

waterproofing layer against

damage by the ballast









## SUSTAINABILITY

Corporate Carbon Footprint, Product Carbon Footprint, Energy Management, Social and economic sustainability at KRAIBURG Relastec





#### Equal opportunities

We stand for equal opportunity, diversity, inclusion and religious diversity.



#### Social responsibility

Fair pay, collective bargaining, further training, career development, work-life integration.



#### Respect

We are honest, reliable, respectful and trustworthy towards our colleagues and partners.



#### Personal contact persons



We do not hide behind support hotlines and contact forms. With us, you have personal, competent contact persons.

#### Product quality



Our products meet the highest quality standards. They are durable, a perfect fit and made from high-quality raw materials.

#### Innovation and product design



We continuously develop new products according to the requirements of our customers and the market.



#### Recycling of up to 60,000 t material

Every year, we process and recycle up to 60,000 tons of old tyres, closed-cell rubber foams and rubber production scrap.



#### **Coming soon: Product Carbon Footprint**

The PCF is measured in accordance with ISO 14067 and ISO 14040/44.



#### Member of NEW LIFE initiative

The declared aim of NEW LIFE is to demonstrate the advantages of recycled products from End-of-Life Tires (ELT) to the media, politicians and the general public and to motivate them to act sustainably. More information: www.initiative-new-life.de/en



**Reduction of** CO, emissions

By using recycled rubber granulate, we save more than 130,000 tonnes of CO<sub>2</sub> emissions per year compared to virgin rubber.



#### **Energy management** according to ISO 50001

Our energy management system is in accordance with ISO 50001 standards. Energy-relevant topics are taken into account in all processes of the organisation.



#### Social sustainability

Acting in accordance with our values such as equal opportunities, social responsibility, respectful treatment and transparency, is our foundation for practicing social sustainability.



Corporate

**Carbon Footprint** 

The CCF was developed in

accordance with the Greenhouse

Gas Protocol audit.

Bronze Rating

The ecovadis rating covers numerous management systems, including environmental impact and sustainable procurement. More information: www.ecovadis.com



#### Economic sustainability

As a family business, KRAIBURG Holding pursues a long-term strategy. Profits generated are used to a significant extent to make our holistic business model ever more efficient and future-proof.

## CORPORATE CULTURE

Defined values, social norms and guidelines, for common action and cooperation inside and outside KRAIBURG Relastec.



#### Strong decision-making powers

😬 些 We ensure speed in process handling, faster technology optimisations and lean processes.



#### Responsible for our actions

We take responsibility for all decisions and results. Error acceptance and the strong will to correct and learn from them are firmly anchored in our culture.



#### Transparency

We practice open, transparent cooperation both inside and outside the company.

## WHAT SETS US APART



#### Internationality

With an export quota of over 50%, we have already exported our products to over 100 countries.



Easy complaint management Transparent and optimised processes ensure rapid processing.



Flexibility with customer requirements We offer our partners customised options for packaging, labelling and delivery, packaging, labelling and delivery.



#### Long-term relationships We maintain long-term relationships with our customers and suppliers based on mutual respect and fairness.



#### Marketing support

We provide you with the best possible support in the form of images or in the design of your documents.



Acoustics and Vibration Isolation made from rubber granules and polyurethane

KRAIBURG Relastec GmbH & Co.KG Fuchsberger Straße 4 · D-29410 Salzwedel

#### Sales:

Tel. +49 (0) 8683 701 -124 Fax +49 (0) 8683 701 -4124 damtec@kraiburg-relastec.com www.kraiburg-relastec.com/damtec

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