KRAIBURG RELASTEC

ACOUSTIC INSULATION UNDER SCREED

made from high-quality elastomer granules

SOLUTIONS FOR CONSTANT LOADS UP TO 20 t/m²
AND IMPACT SOUND IMPROVEMENT UP TO 39 dB

DAMTEC®

EN #1 | 2019

DAMTEC® ACOUSTIC INSULATION

ADVANTAGES AND PROPERTIES

KRAIBURG Relastec has specialised in the manufacturing of high-quality and effective products for sound and vibration insulation for decades. They are a competent partner for acoustic and vibration insulation products made of recycled rubber granules and for determining the most effective sound insulation measures. DAMTEC® products are quickly and easily installed directly under screeds and offer an impressive range of technical characteristics as a solution for a wide range of applications.

Advantages and properties

with European Technical Approval (CE label)

brilliant noise insulation with a low panel thickness; highest resiliency even after years of use

waterproofed and rot-proofed

fast and easy installation

outstanding compressive strength and load-bearing performance

permanently elastic

very low emission; very environment-friendly, recycled rubber can be recycled again

High pressure load capacity, elasticity and fast and easy installation are only a few of the outstanding properties of our impact sound insulation products. Another major advantage of DAMTEC® elastomer mats is the low thickness of 4mm to 17mm for low installation heights. This allows planners to save heights in new buildings or adapt to given conditions in the case of renovation.

In situations with high requirements for impact sound insulation our DAMTEC® screed insulation products are ideal for use in residential, industrial and commercial buildings. Rubber granules also guarantee a long life without material fatigue.

Take advantage of the specialists for acoustic insulation:

We would be happy to assist you by selecting the correct product for your requirements. According to the impact sound requirements, existing or planned floor systems / floor finishes and required screed thicknesses, we are at your disposal for any application-specific consulting to achieve the optimal impact sound insulation. In the field of large-scaled industrial projects, we are also happy to measure the impact sound improvement in connection with DAMTEC® products on-site. Simply talk to us.

DAMTEC® ACOUSTIC INSULATION

APPLICATIONS AND REFERENCE PROJECTS

Applications

production halls

shopping centres

concert halls, cinemas

fitness centers

public buildings,
convention centres

schools,
training centers

hotels

recording studios,
acoustic test laboratories

Selected reference projects

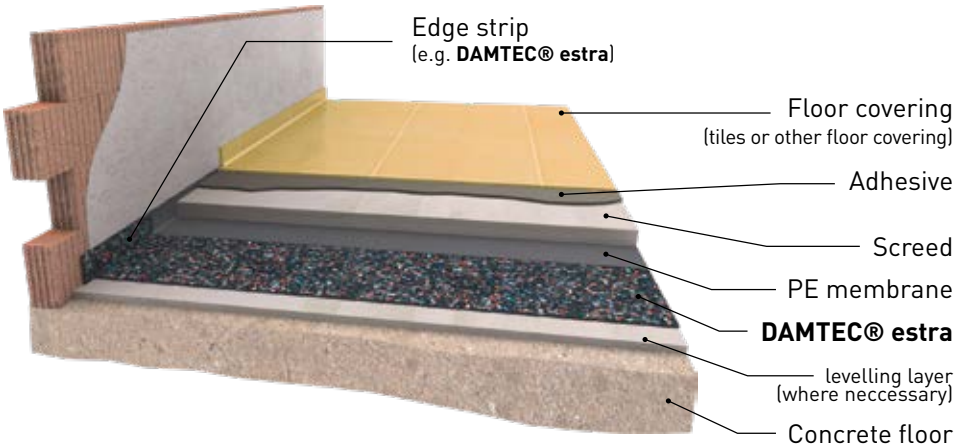
Reference	Product
Arnulfpark Munich	DAMTEC® estra
Skygarden Munich	DAMTEC® estra
Fraunhofer Institute	DAMTEC® estra 3D 8/4
Airport Mönchengladbach	DAMTEC® wave 3D 8/4
QNCC Doha	DAMTEC® estra
Several German super-markets like Lidl, Aldi, REWE, Netto, Penny, Edeka	different products
Carrefour supermarkets	DAMTEC® 3D 17/8
Crown Plaza hotels	different products
Grand Hyatt hotel	DAMTEC® estra
Intercontinental hotel	DAMTEC® estra
Savoy hotel	DAMTEC® estra
Hilton hotels	different products
Aloft Hotel Abu Dhabi	DAMTEC® estra

Product	ΔL_w	max. continous load	dynamic stiffness
DAMTEC® estra	19-21 dB	0.20 N/mm²	≤ 90 MN/m³
DAMTEC® estra 3D 8/4	22-26 dB	0.10 N/mm²	< 20 MN/m³
DAMTEC® 3D 17/8	26-32 dB	0.10 N/mm²	< 15 MN/m³
DAMTEC® wave 3D 8/4	25-30 dB	0.02 N/mm²	< 18 MN/m³
DAMTEC® wave 3D 17/8	32-39 dB	0.02 N/mm²	< 10 MN/m³

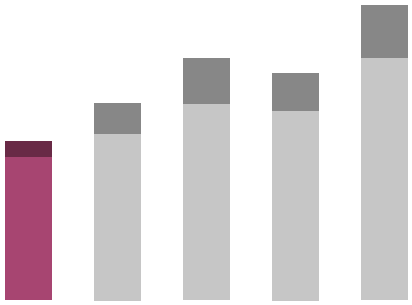
Value for impact sound improvement ΔL_w and dynamic stiffness depends on material thickness and kind of screed.

DAMTEC® estra

IMPACT SOUND IMPROVEMENT UNDER SCREED: ⩽ 21 dB



Overview



19-21 dB

Material	Granules of recycled rubber with PU elastomer bonding agent
Area weight	**4 mm**: 2,580 - 3,160 g/m²; **6 mm**: 3,870 - 4,730 g/m² **8 mm**: 5,160 - 6,310 g/m²
Thicknesses	4, 6 or 8 mm (± 0.3 mm)
Roll width / Roll length	1,250 mm (± 1.5 %), on request (± 1.5 %)
Edge strip	DAMTEC® estra 8 x 250 x 8,000 mm
Maximum pressure	0.20 N/mm² (in accordance with EN 826)
Dynamic stiffness	**4 mm** < 90 MN/m³; **6 mm** < 70 MN/m³; **8 mm** < 60 MN/m³ (EN 29052)
Temperature resistance	-30° to + 80° C
Impact sound improvement ΔL_w	19 dB for 6 mm (under 35 mm screed, 70 kg/m²) (ETA- 13/0342) 20 dB for 6 mm (under 55 mm screed, 110 kg/m²) 21 dB for 8 mm (under 55 mm screed, 110 kg/m²)

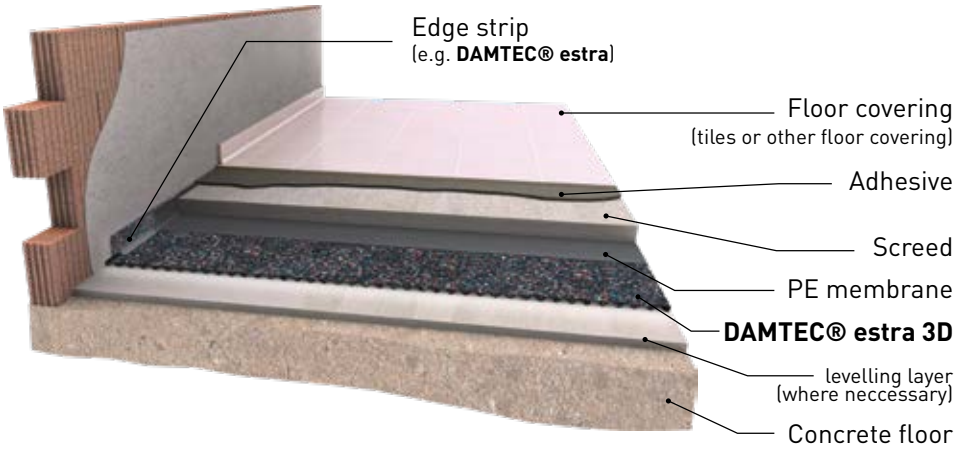
CE

ETA - 13/0342

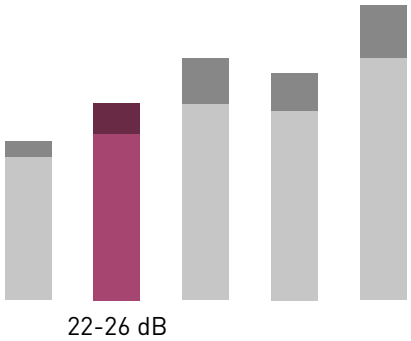
GEV-EMICODE® EC 1 very low emission

DAMTEC® estra 3D 8/4

IMPACT SOUND IMPROVEMENT UNDER SCREED: ⩽ 26 dB



Overview



Material	Granules of recycled rubber with PU elastomer bonding agent
Area weight	3,870 - 4,730 g/m²
Thickness	8/4 mm (± 1.0 mm)
Roll width / Roll length	1,250 mm (± 1.5 %), on request (± 1.5 %)
Edge strip	DAMTEC® estra 8 x 250 x 8,000 mm
Lower side	wave profile
Maximum pressure	0.10 N/mm² (in accordance with EN 826)
Dynamic stiffness	⩽20 MN/m³ (EN 29052)
Temperature resistance	-30° to + 80° C
Impact sound improvement ΔL_w	22dB (under 50 mm screed, 120 kg/m²) (ETA –13/0572) 26dB (under 80 mm screed, 179 kg/m²)

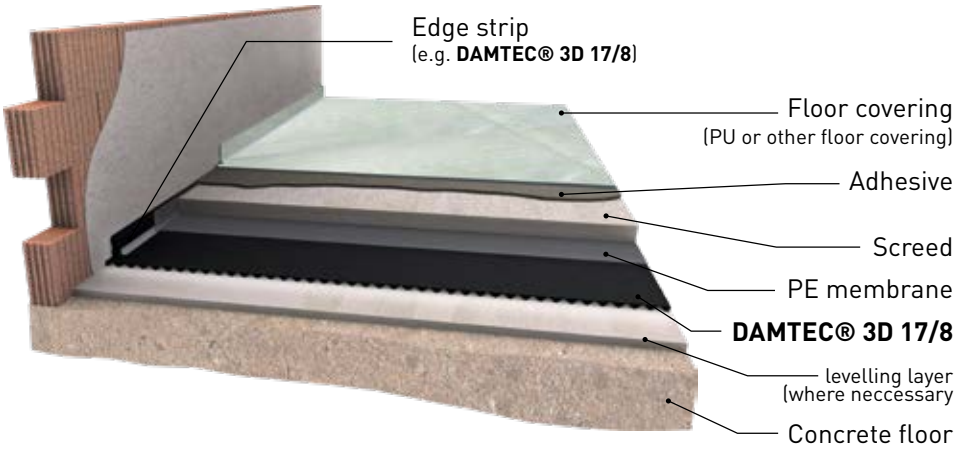
CE

ETA - 13/0572

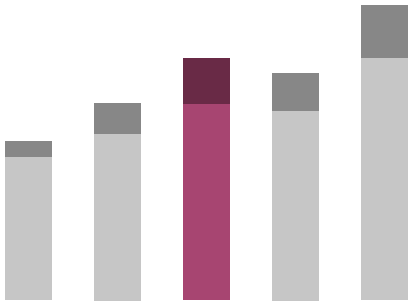
GEV-EMICODE® EC 1 very low emission

DAMTEC® 3D 17/8

IMPACT SOUND IMPROVEMENT UNDER SCREED: ⩽ 30 dB 1 layer, ⩽ 32 dB 2 layers



Overview



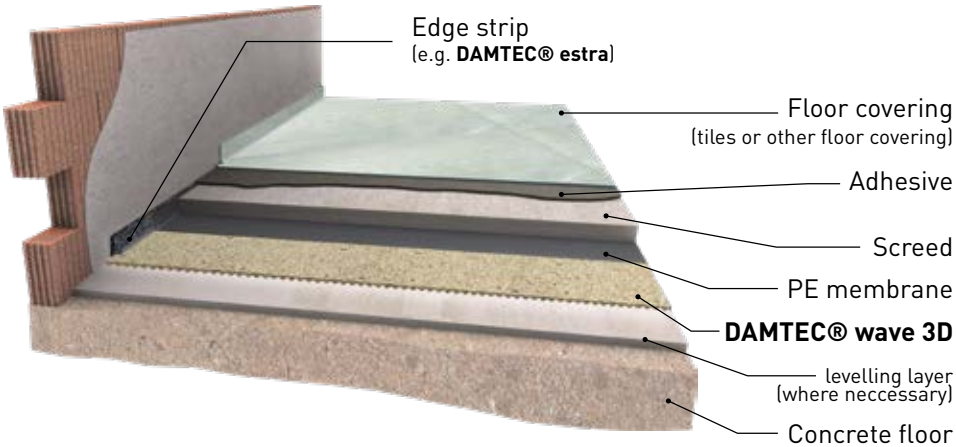
Material	High-grade granules and fibres of recycled rubber with PU elastomer bonding agent
Area weight	500 - 600 kg/m³
Thickness	17/8 mm (± 1.0 mm)
Roll width / Roll length	1,250 mm (± 1.5 %), 8 m (± 1.5 %)
Edge strip	DAMTEC® estra 8 x 250 x 8,000 mm
Lower side	wave profile
Maximum pressure	0.10 N/mm² (DIN EN 826)
Dynamic stiffness	ca. 15 MN/m³ (EN 29052)
Temperature resistance	-40° to + 80° C
Impact sound improvement ΔL_w	26 dB single layer (under 55 mm screed, 106 kg/m²) (ETA -16/0481) 30 dB single layer (under 80 mm screed, 179 kg/m²) 32 dB dual layer (under 60 mm screed, 72 kg/m²)

CE

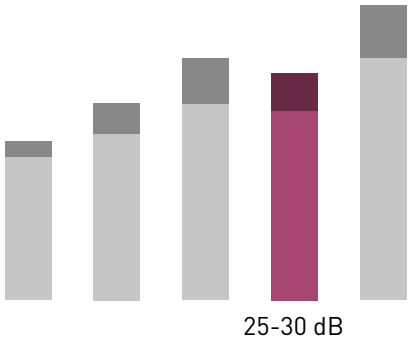
ETA - 16/0481

DAMTEC® wave 3D 8/4

IMPACT SOUND IMPROVEMENT UNDER SCREED: ⩽ 30 dB



Overview



Material	Compound of high-grade recycled polyurethane foam and cork with PU elastomer bonding agent.
Area weight	300 - 400 kg/m³
Thickness	8/4 mm
Roll width / Roll length	1,250 mm (± 1.5 %), 8 m (± 1.5 %)
Lower side	wave profile
Maximum pressure	0.03 N/mm²
Dynamic stiffness	18 MN/m³ (EN 29052)
Temperature resistance	-30° to + 80° C
Fire resistance	E_{fl} (ISO 11925/EN 13501)
Impact sound improvement ΔL_w	25 dB (under 50 mm screed, 99 kg/m²) (ETA -15/0358) 30 dB (under 80 mm screed, 179 kg/m²)

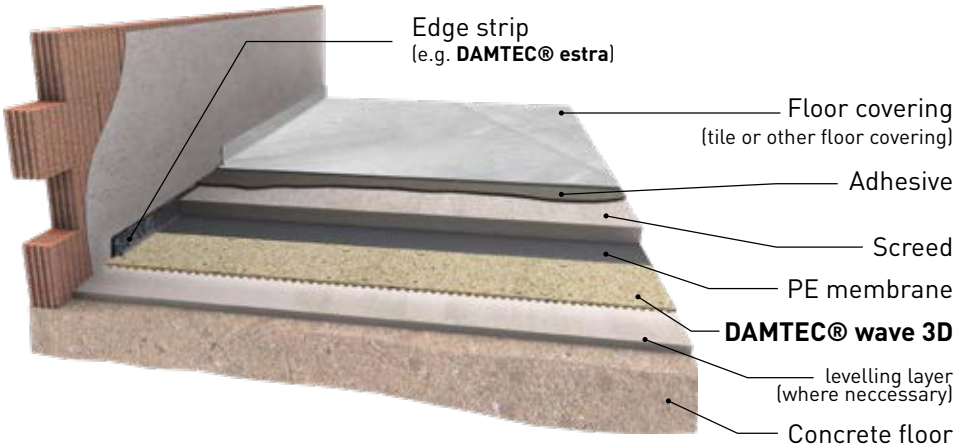
CE

ETA - 15/0358

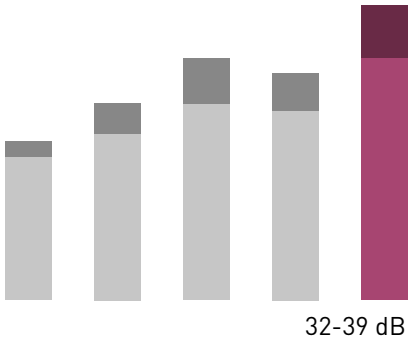
GEV-EMICODE® EC 1 PLUS very low emission

DAMTEC® wave 3D 17/8

IMPACT SOUND IMPROVEMENT UNDER SCREED: ⩽ 35 dB 1 layer, ⩽ 39 dB 2 layers



Overview



Material	Compound of high-grade recycled polyurethane foam and cork with PU elastomer bonding agent.
Area weight	300 - 400 kg/m³
Thickness	17/8 mm
Roll width / Roll length	1,250 mm (± 1.5 %), 8 m (± 1.5 %)
Lower side	wave profile
Maximum pressure	0.03 N/mm² (EN 826)
Dynamic stiffness	7 MN/m³ (EN 29052)
Temperature resistance	-30° to + 80° C
Fire resistance	E_{fl} (ISO 11925/EN 13501)
Impact sound improvement ΔL_w	32 dB single layer (under 50 mm screed, 102 kg/m²) (ETA -15/0358) 35 dB single layer (under 80 mm screed, 179 kg/m²) 39 dB dual layer (under 80 mm screed, 179 kg/m²)

CE

ETA - 15/0358

GEV-EMICODE® EC 1 PLUS very low emission

ENVIRONMENTAL MANAGEMENT AT KRAIBURG RELASTEC
FROM OLD TYRES TO TOP-QUALITY FINISHED PRODUCTS

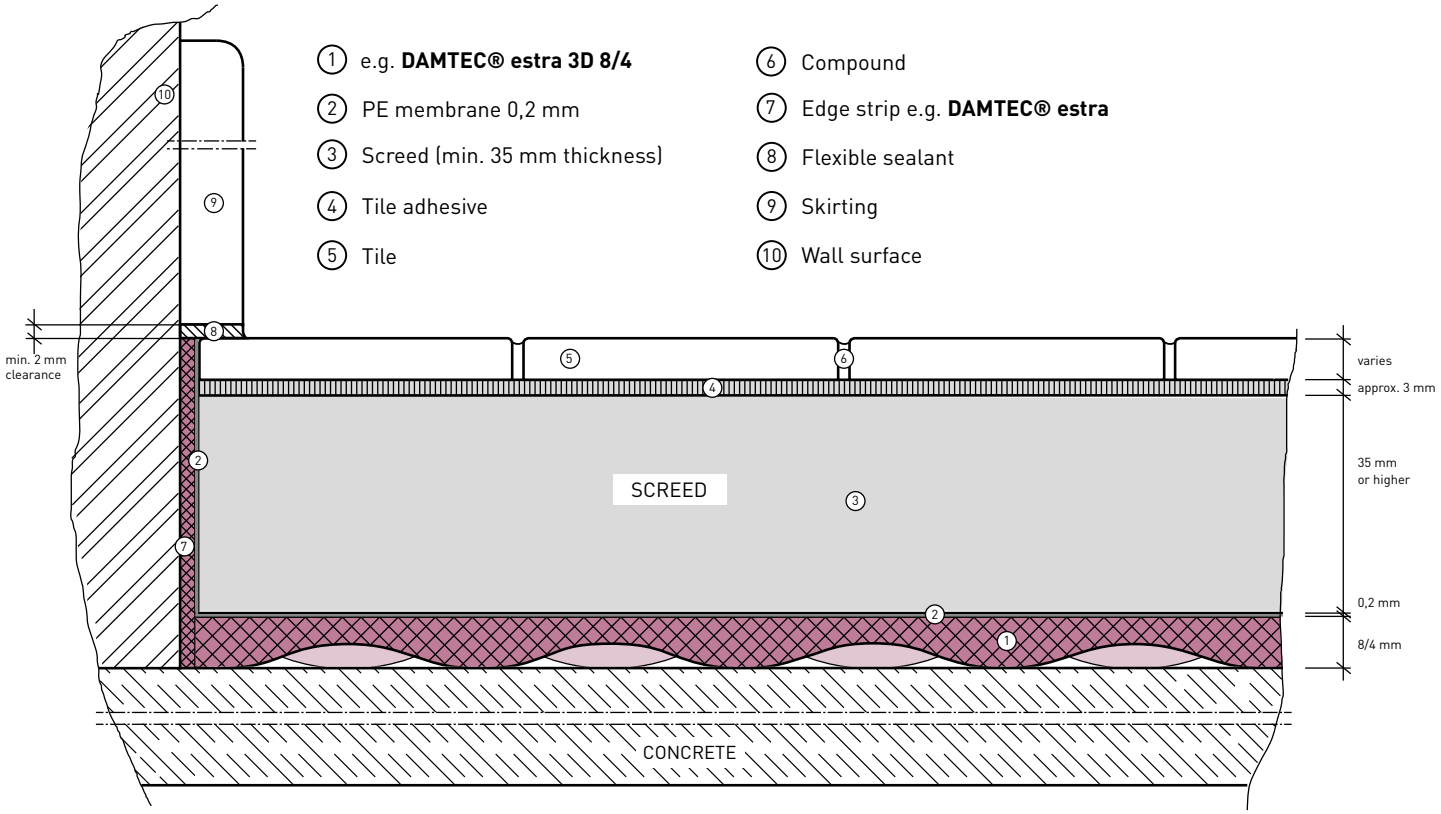
KRAIBURG Relastec is one of the best known global companies that specialise in the production of technical rubber materials from old tyres. As a recycling specialist, we have for many years been committed to the protection of the environment. Every year, we process and recycle about 85,000 tons of old tyres, closed-cell rubber and rubber production scrap. From these raw materials, we produce high-quality granules based on our internally developed formulations. These granules make up more than 90 % of the material used in our finished products. All our products are 100 % recyclable without loss of quality.

At KRAIBURG Relastec, protecting the environment is a strategic priority. We are convinced that sustainable growth is only achievable, if we meet our responsibilities towards the environment. KRAIBURG Relastec has therefore adopted a very simple policy: Protecting the environment is part and parcel of what we do every day!

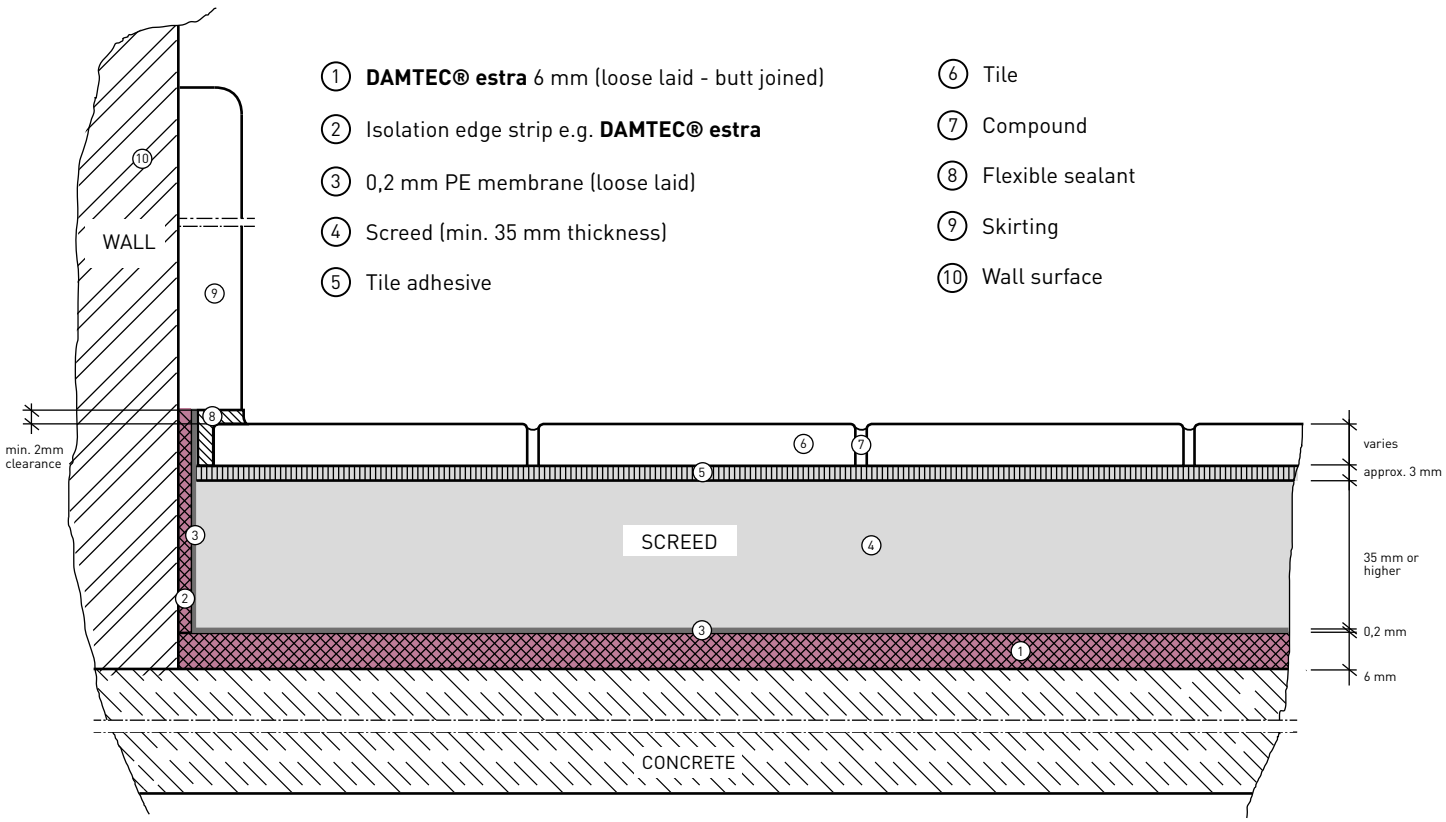
Our "pro environment" logo stands not only for 40 years of sustainable business practices that protect resources, but emphasises our commitment to product quality and continuous improvement for the protection of the environment beyond the statutory regulations.

- We turn waste rubber materials into new raw materials and products, making a valuable contribution to waste reduction and the protection of the environment.
- We invest in innovative and environmentally friendly production methods and technologies.
- Our products are subject to continuous quality testing and further development, whereby environmental concerns are given priority. We are always on the lookout for even more environmentally friendly alternatives that enable us to further reduce emissions and protect resources.
- All employees of KRAIBURG Relastec undertake to implement sustainable practices in their daily work and to protect the environment wherever they can.
- We expect the same from our suppliers and constantly monitor their performance.

DAMTEC® Technical drawings



1. e.g. **DAMTEC® estra 3D 8/4**
2. PE membrane 0,2 mm
3. Screed (min. 35 mm thickness)
4. Tile adhesive
5. Tile
6. Compound
7. Edge strip e.g. **DAMTEC® estra**
8. Flexible sealant
9. Skirting
10. Wall surface



1. **DAMTEC® estra** 6 mm (loose laid - butt joined)
2. Isolation edge strip e.g. **DAMTEC® estra**
3. 0,2 mm PE membrane (loose laid)
4. Screed (min. 35 mm thickness)
5. Tile adhesive
6. Tile
7. Compound
8. Flexible sealant
9. Skirting
10. Wall surface

DAMTEC® project
Hilton Hotel Istanbul, Turkey

DAMTEC® project
Aloft Hotel, Abu Dhabi

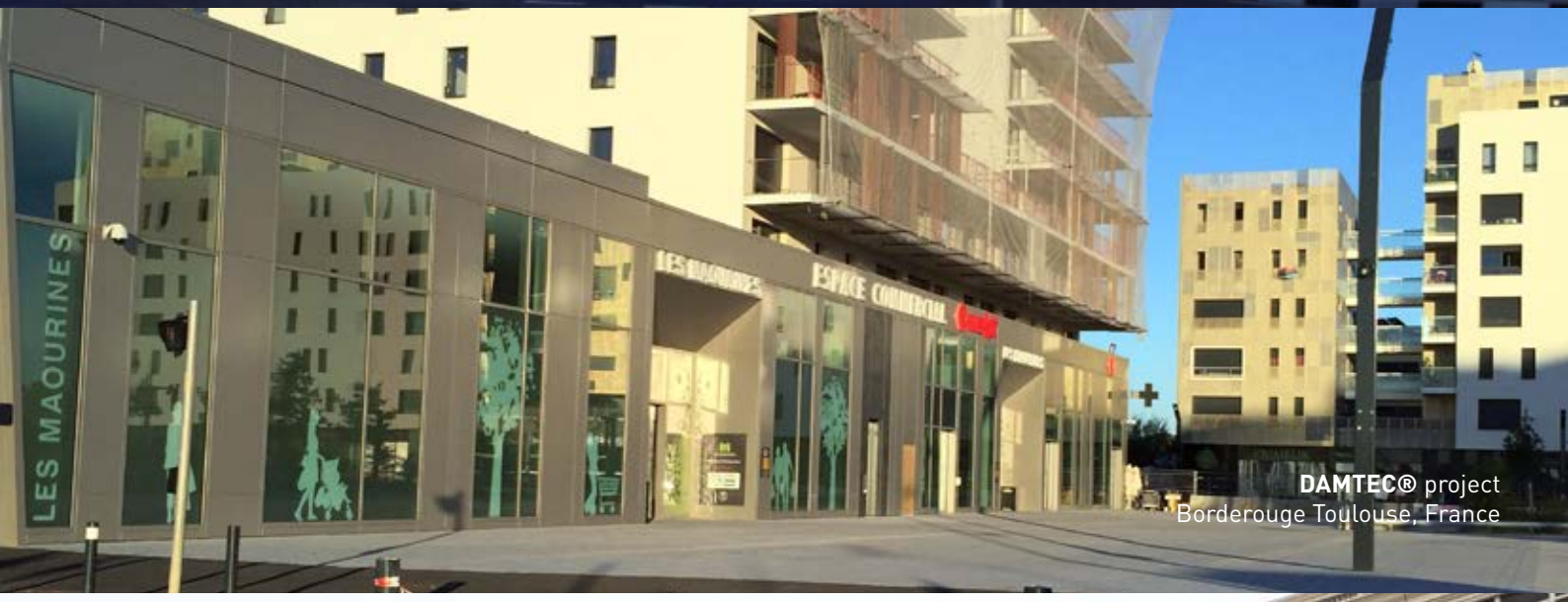
DAMTEC® project
Lufthansa training center, Seeheim, Germany

DAMTEC® project
DC Tower, Vienna, Austria

DAMTEC® project
University, Leipzig, Germany

DAMTEC® project
Savoy Hotel, Seychelles

DAMTEC® project
Grand Hyatt, Doha, Qatar

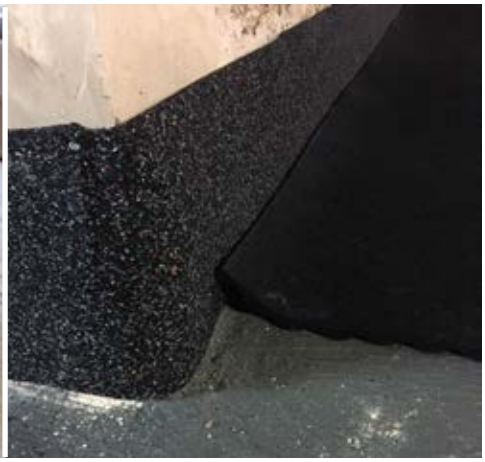


DAMTEC® project
Borderouge Toulouse, France

DAMTEC® project
Palazzo Versace, Dubai

1 Installation of the edge strips DAMTEC® estra 8 x 250 x 8000 mm





2 Rolling out DAMTEC® 3D 17/8 or DAMTEC® wave 3D


3 Cut the underlay to the exact size, butt the strips. The joints can be covered with adhesive tape to avoid sound bridges.


4 Cover underlay with PE membrane which should also cover the peripheral insulation strip and extend above the subsequent floor surface. Be certain that screed cannot enter into the insulating underlay.





5 Install the screed or light weight cement.


The illustrations above show the main sequences in the general installation of our DAMTEC® acoustic insulation products under screed. **Important**: We refer to the respective installation instruction for the different DAMTEC® products.
The complete and detailed installation instructions can be found at **www.kraiburg-relastec.com/damtec**

DAMTEC®

Acoustics and Vibration Isolation
made from rubber granules and polyurethane

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quality austria SYSTEMZERTIFIZIERT
ISO 9001:2015 NR. 00186/0
ISO 50001:2011 NR. 00070/0