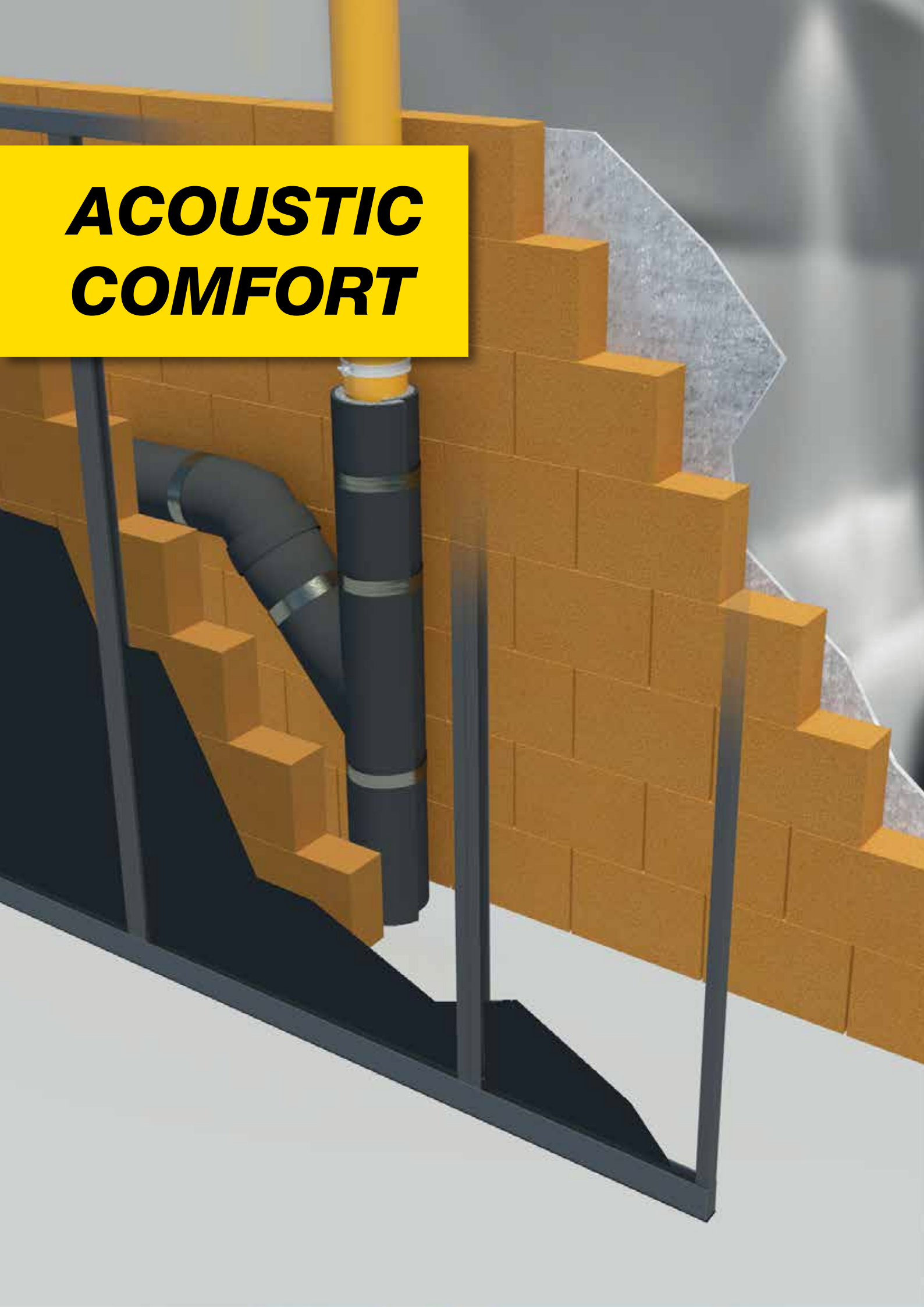
EDITION **2021**

K-FLEX® K-FONIK
SOLUTIONS FOR ACOUSTIC COMFORT

www.kflex.com


ACOUSTIC
COMFORT

INDEX

K-FLEX® ACOUSTIC SOLUTIONS

ACOUSTIC SOLUTIONS

Whether at home, work or leisure, most of our time is spent inside buildings, so it is important that we feel comfortable. The optimum environment is created from a combination of the correct ambient temperature, humidity and lighting, access to necessary resources and suitable acoustic insulation. All these factors have to be taken into consideration when designing buildings, and will also have a direct bearing on the build cost and final project value. K-FLEX® offers good value high performance acoustic solutions to meet the demands of today's buildings (both new-build and renovation projects) with high quality, excellent durability and optimum design, complying with the required regulations. K-FLEX® products are manufactured to the highest specifications using high quality durable materials and finishes with excellent performance qualities.

HOW SOUND IS PROPAGATED THROUGH BUILDINGS

When a sound wave passing through the air meets a partition, some of the energy is reflected and the rest is absorbed. Part of the absorbed energy will spread within the partition, and the rest crosses through the partition and is transmitted to the other side. When looking at transmission of sound between two adjacent rooms, it is possible to identify different routes: direct through the partition, and indirect through the structure itself. In addition to this any sound caused by impact - such as furniture being moved, or people walking about - can spread within the building with the same mechanism as airborne noise. The difference is that the structure will vibrate when impacted by a solid object.

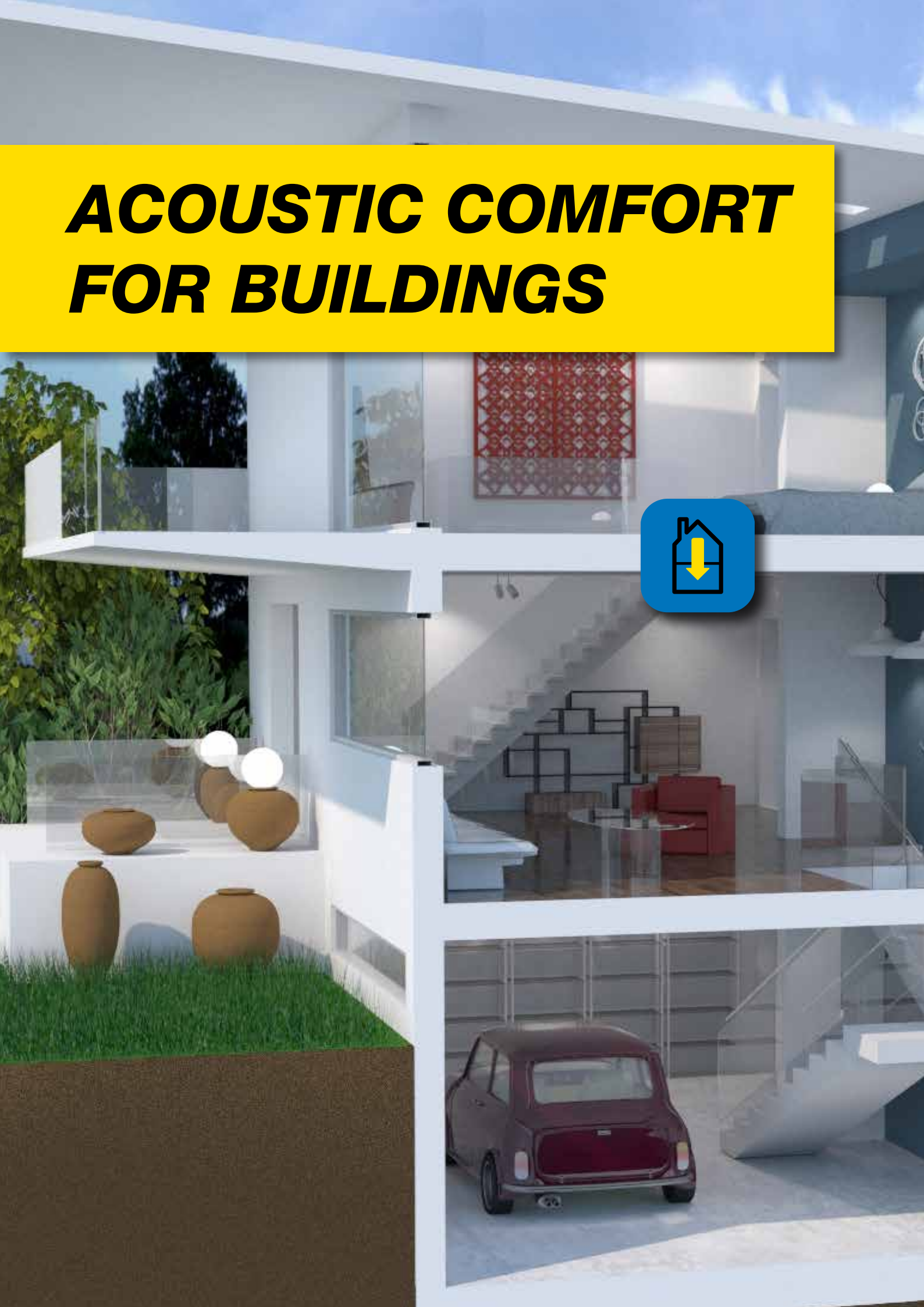
EVALUATION INDEX

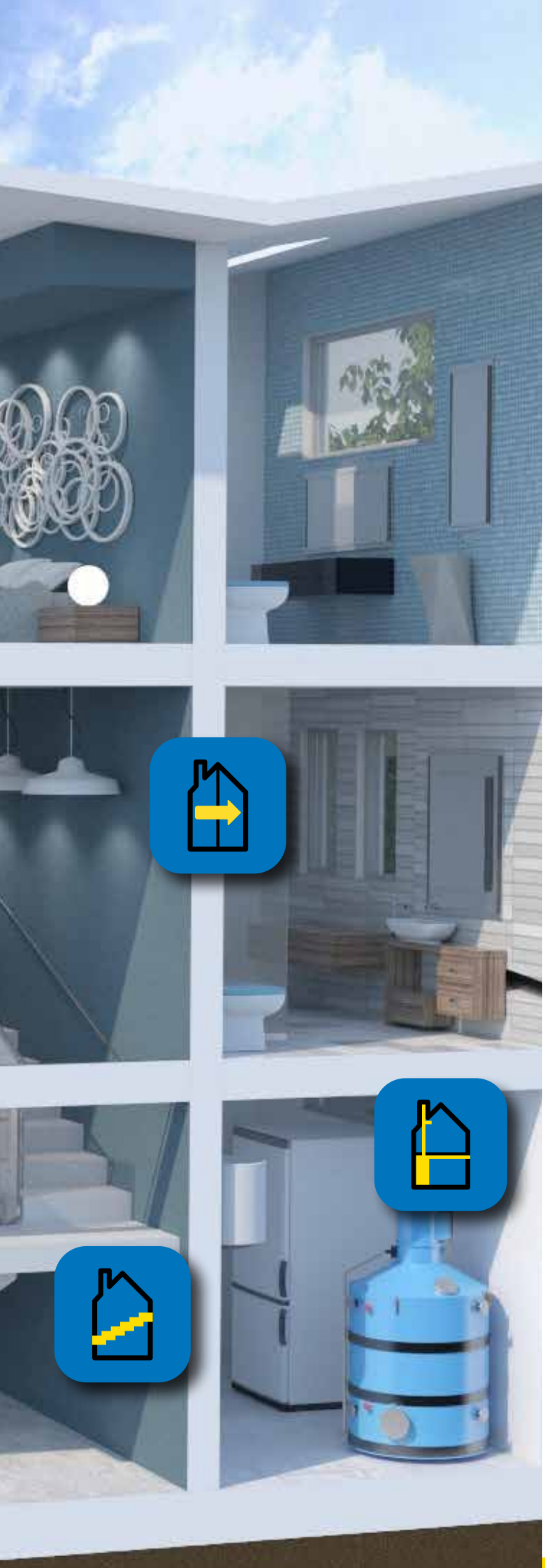
The parameters defining the acoustic properties of a partition are measured in frequency bands of one third of an octave from 100 to 3150Hz. A wall is characterized by different values of the sound reduction index according to the frequency chosen. To facilitate the definition of the overall acoustic performance of a building component, with a single number, the evaluation index was introduced. This is calculated by using a procedure averaging the values to individual frequencies. (R = soundproofing capability by frequency, Rw = index of soundproofing capability, ΔL = attenuation of sound pressure level from footsteps by frequency, ΔLw = index of attenuation). The method for calculating this index is set out in UNI EN ISO 717-1 (airborne noise) and UNI EN ISO 717-2 (underfloor insulation).

ACOUSTIC INSULATION AND SOUND ABSORPTION

Acoustic insulation is designed to minimize the transmission of sound between two areas, ensuring that the noise produced in one does not transmit to adjacent areas. In this way, a dividing wall between compartments and the surrounding facilities should ensure insulation against sound transmission. The other purpose of sound insulation is to reduce the reflection of sound from the structures of a room and reducing any acoustic reverberation. In all cases, materials for walls, ceilings and floors should be chosen for their sound absorbing performance and characteristics.

ACOUSTIC COMFORT FOR BUILDINGS





ENGINEERING SERVICES
FOR ACOUSTIC INSULATION

K-FLEX® offers a wide range of solutions for acoustic applications: products for acoustic insulation, sound absorption and to reduce the transmission of vibration. Many years of experience in research and the development of new materials means that K-FLEX® can provide optimum solutions for different applications.

K-FLEX® can provide the necessary technical support to address a large range of acoustic insulation requirements and always aims to offer the best possible solution for the application through the use of calculation, monitoring equipment and practical simulation.

For several years now K-FLEX® has been working closely with some of the most important research institutes and universities with the aim of improving the acoustic performance of its products. Over the years these partnerships have enabled us to develop a number of innovative products while at the same time creating a range of design solutions to improve the service that the company offers to customers.

FLOOR INSULATION
Acoustic insulation for footfall on floating floors.

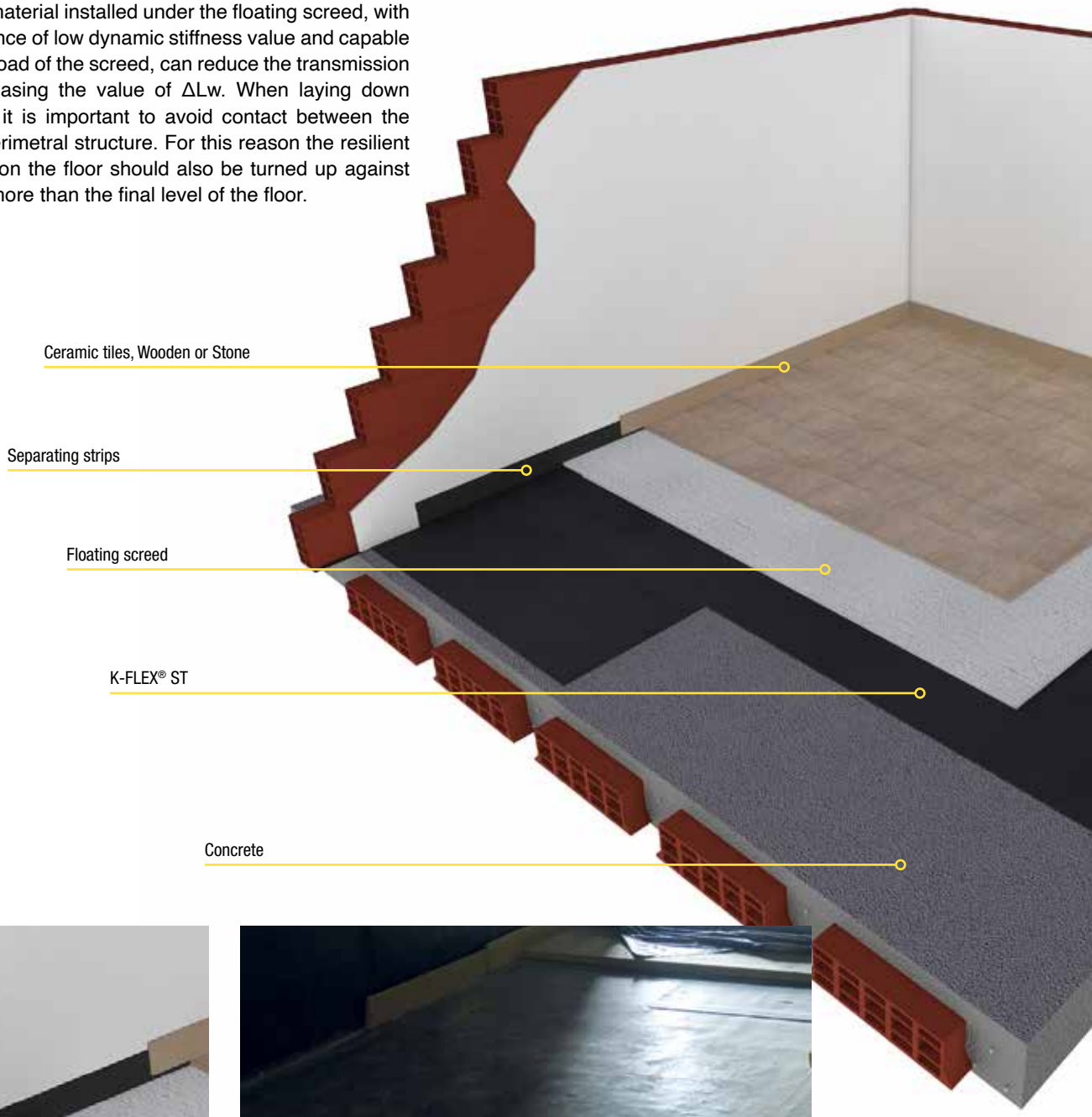
STRUCTURE INSULATION
Acoustic insulation for buildings and to reduce vibration transmission.

WALL INSULATION
Acoustic insulation, reducing the airborne transmission, for both solid and lightweight walls.

HVAC/R
Acoustic insulation for technical installations, ventilation and drainage systems.

FLOATING FLOOR

The floating floor is the most common technical solution for sound insulation in the building industry. To insulate a floor against the sound made by footsteps, a resilient material must be placed between the source of the noise and the building structure. The use of an elastic material installed under the floating screed, with certified performance of low dynamic stiffness value and capable of supporting the load of the screed, can reduce the transmission of vibration, increasing the value of ΔLw. When laying down a floating screed it is important to avoid contact between the screed and the perimetral structure. For this reason the resilient material installed on the floor should also be turned up against the walls to 5cm more than the final level of the floor.




Detail of K-FLEX® ST turned up against walls

FLOATING FLOOR
Attenuation of the pressure level:
ΔL_w = 25 dB
Correction terms: $C_{L,\Delta}$ = -14 dB

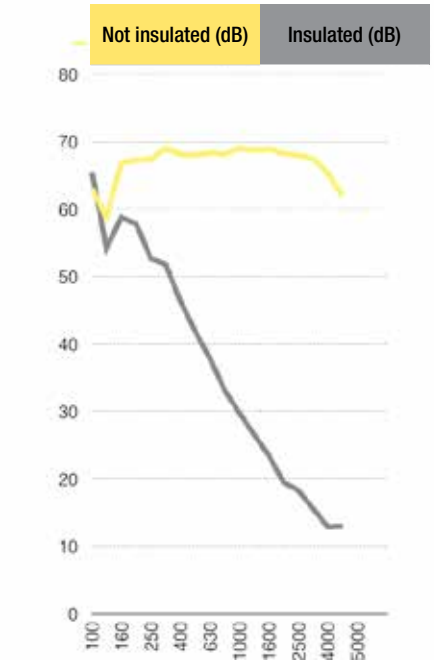
Description of components	Thickness (mm)
1 Ceramic Tiles	10
2 Floating Screed	50
3 K-FLEX® ST	6
4 Concrete	140

K-FLEX® ST ▸ TECHNICAL DATA

Property	Value	Test method
Material	Flexible elastomeric foam	EN 14304
Fire classification	B-s3,d0	EN 13501
Dimensions	h 1000 mm - Rolls 30 m	
Thickness	6 mm	
Dynamic stiffness	54 MN/m^3	UNI EN 29052
Surface	Smooth	
Weight	0,3 kg/m^2 (±10%)	
Base colour	Black	
Density	50 kg/m^3 (±10%)	
Compressibility	0,3±0,05 mm	UNI EN 12431

K-FLEX® reserves the right to change data and technical requirements without notice.

PERFORMANCE



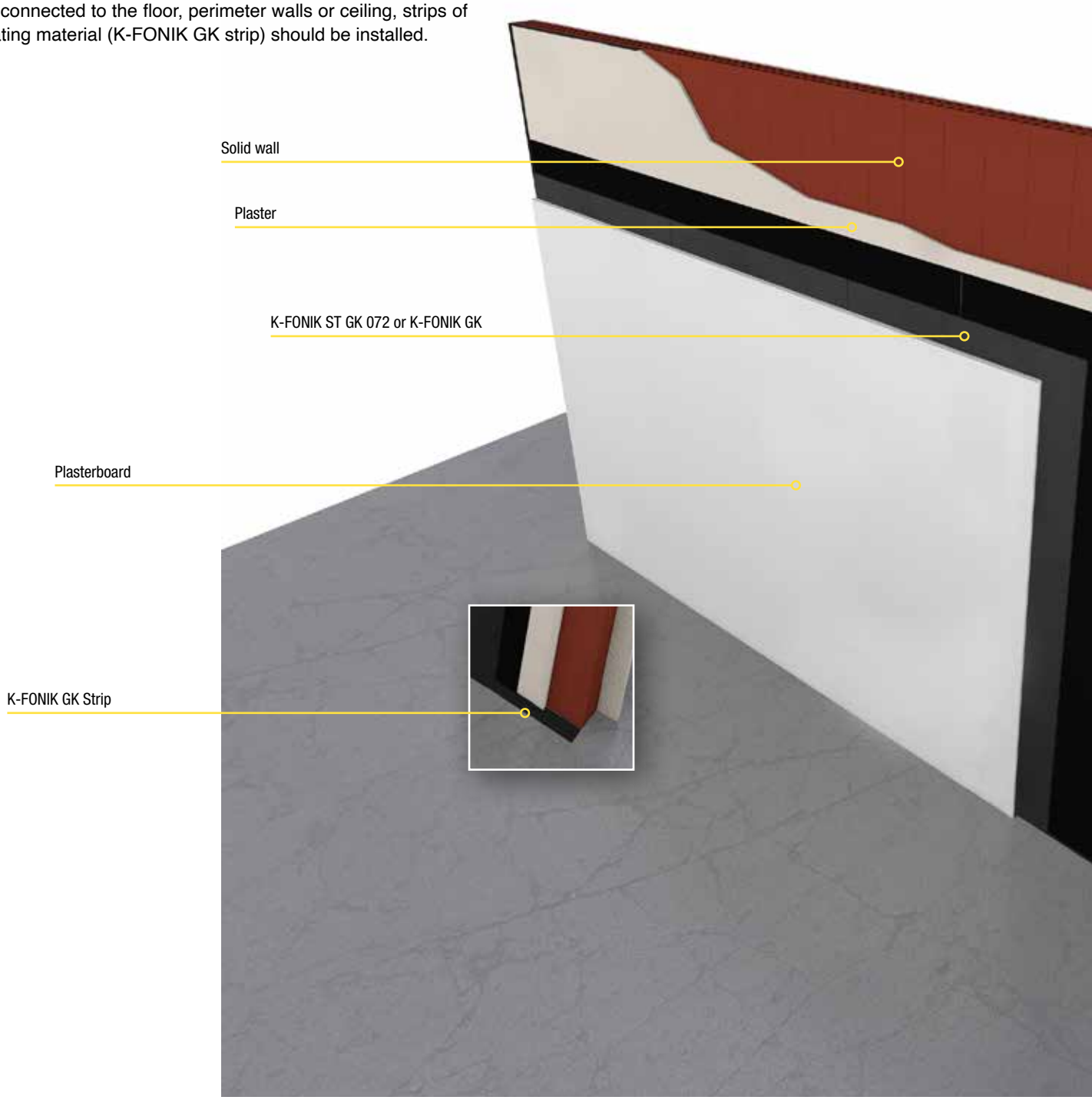
Freq. (Hz)	Not insulated (dB)	Insulated (dB)	ΔL (dB)
100	63,0	65,4	-2,3
125	58,8	54,3	4,4
160	66,8	58,8	8,0
200	67,3	57,8	9,4
250	67,4	52,7	14,7
315	69,0	51,8	17,2
400	68,2	46,4	21,8
500	68,0	41,9	26,2
630	68,4	37,9	30,5
800	68,1	33,2	34,9
1000	69,1	29,8	39,3
1250	68,7	26,6	42,1
1600	68,9	23,5	45,5
2000	68,2	19,5	48,7
2500	68,0	18,3	49,7
3150	67,5	15,6	51,9
4000	65,4	12,9	52,6
5000	61,9	13,0	48,9

ACOUSTIC PERFORMANCE

$L_{nr0,w}$ = 78 dB
$L_{nr,w}$ = 53 dB
ΔL_w = 25 dB
$C_{L,\Delta}$ = -14 dB

PLASTERBOARD ON SOLID WALL

Good insulation from airborne sound between different units can be achieved by correct installation of the appropriate dividing partitions. Sound insulation of solid or light walls is mainly determined by the mass per surface unit. An increase of mass corresponds to an increase of sound insulation wall Rw. Viscoelastic mass (K-FONIK ST GK 072 or K-FONIK GK) can be installed directly onto solid walls and single or double plasterboard installed on top. To further reduce lateral transmission of noise where connected to the floor, perimeter walls or ceiling, strips of separating material (K-FONIK GK strip) should be installed.



PLASTERBOARD ON SOLID WALL
Weighted sound reduction index R_w = 45 dB
Correction terms: C= -1dB; C_{tr}= -6dB

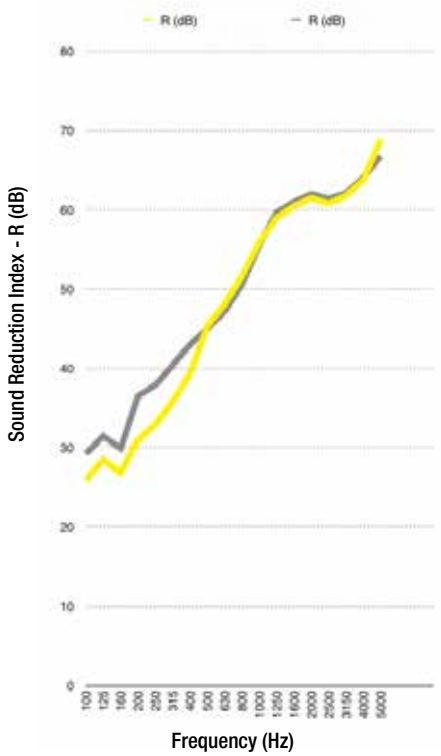
Description of components	Thickness (mm)
1 Solid wall	80
2 Plaster	15
3 K-FONIK ST GK 072	12
4 Plasterboard	13

K-FLEX® K-FONIK ST GK ▸ TECHNICAL DATA

Property	Value	Test method
Material	Flexible elastomeric foam with high-density elastomeric material	
Weight	4,4 kg/m² (K-FONIK ST GK 072)	
Fire rating	B - s3,d0	EN 13501-1
Thermal conductivity	0.036 W/(m•K)	EN 12667
Temperature	-40 °C +70 °C	
Dimensions	2000 x 1000 mm	
Surface	Smooth	
Base colour	Black	

K-FLEX® reserves the right to change data and technical requirements without notice.

PERFORMANCE



ACOUSTIC PERFORMANCE

R_w (C;C_{tr})=45(-1;-6)dB

Freq. (Hz)	Plasterboard R (dB)	Double Plasterboard R (dB)
100	25,9	29,2
125	28,5	31,5
160	26,8	29,9
200	31,0	36,5
250	32,9	37,9
315	35,8	40,4
400	39,3	43,0
500	45,3	45,0
630	48,1	47,2
800	51,6	50,6
1000	55,9	55,6
1250	59,0	59,7
1600	60,5	61,0
2000	61,5	62,0
2500	60,8	61,4
3150	61,8	62,1
4000	63,8	64,1
5000	68,8	66,8

DOUBLE PLASTERBOARD ON SOLID WALL


Double Plasterboard Configuration

DOUBLE PLASTERBOARD ON SOLID WALL
Weighted sound reduction index R_w = 49 dB
Correction terms: C= -2dB; C_{tr}= -7dB

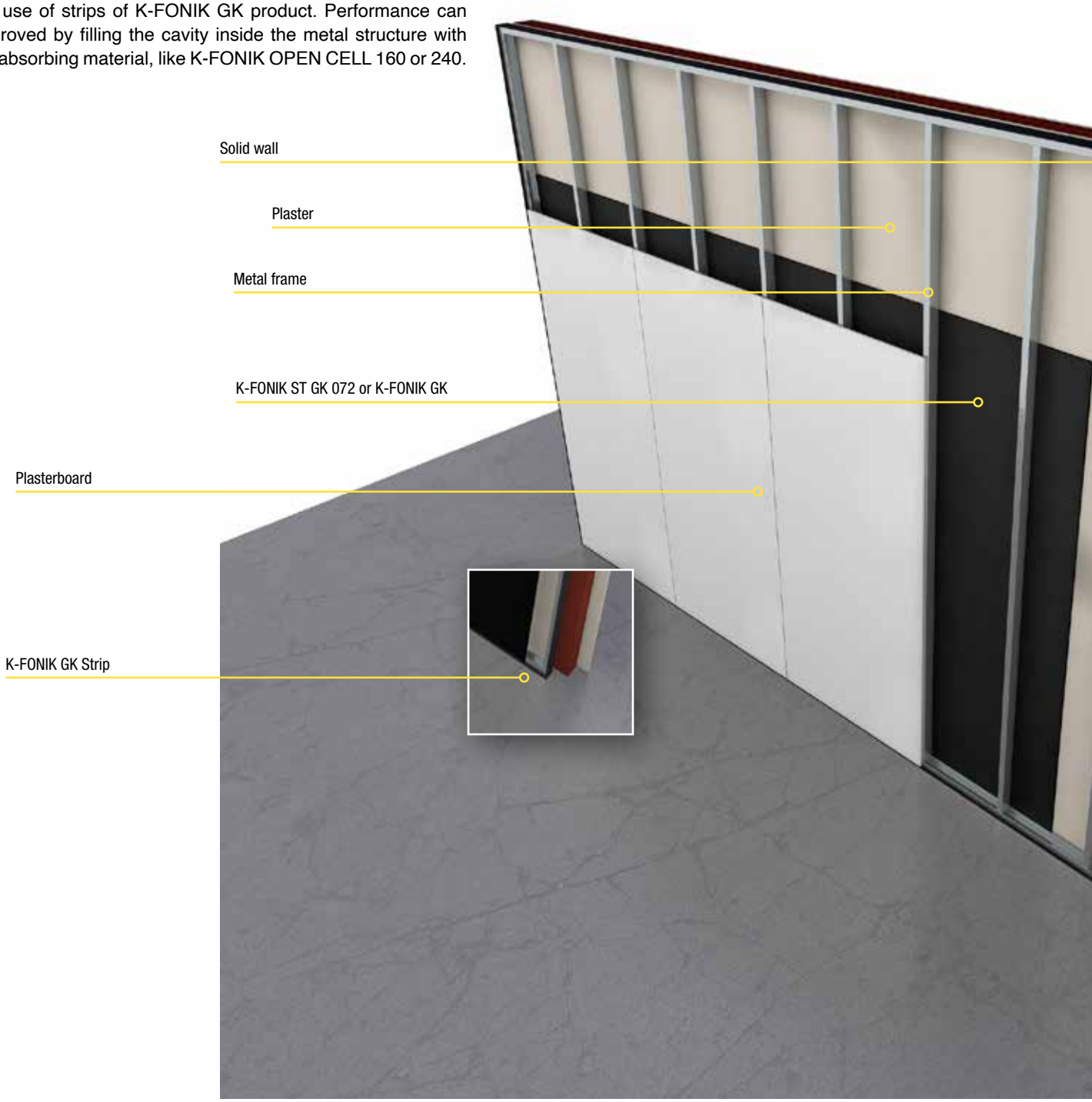
Description of components	Thickness (mm)
1 Solid wall	80
2 Plaster	15
3 K-FONIK ST GK 072	12
4 Plasterboard	13
5 Plasterboard	13

ACOUSTIC PERFORMANCE

R_w (C;C_{tr})=49(-2;-7)dB

SOLID WALL WITH PLASTERBOARD ON METAL FRAME

An alternative solution is to install plasterboard onto metal framework fixed to the existing solid wall. A layer of K-FONIK ST GK 072 or K-FONIK GK viscoelastic insulation material is applied to the existing solid wall. Plasterboard is applied to the metal framework. The metal framework is separated from the wall by the use of strips of K-FONIK GK product. Performance can be improved by filling the cavity inside the metal structure with sound absorbing material, like K-FONIK OPEN CELL 160 or 240.



SOLID WALL WITH PLASTERBOARD ON METAL FRAME
Weighted sound reduction index R_w = 45 dB
Correction terms: C= -1dB; C_{tr}= -6dB

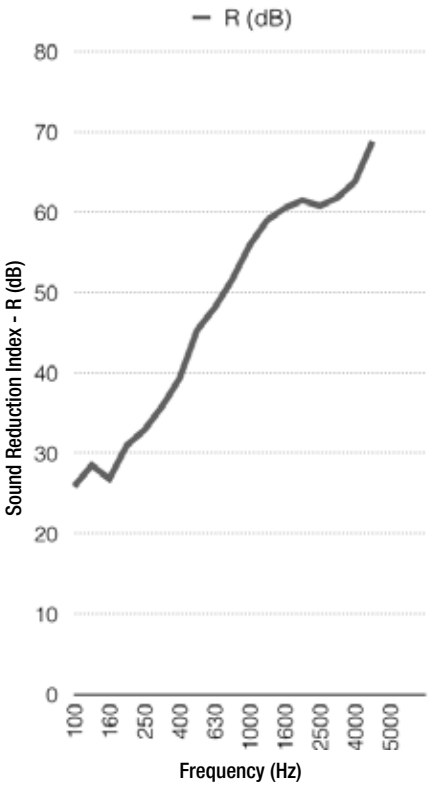
Description of components	Thickness (mm)
1 Solid wall	80
2 Plaster	15
3 K-FONIK ST GK 072	12
4 Metal frame	50
5 Plasterboard	13

K-FLEX® K-FONIK ST GK ▸ TECHNICAL DATA

Property	Value	Test method
Material	Flexible elastomeric foam with high-density elastomeric material	
Weight	4,4 kg/m² (K-FONIK ST GK 072)	
Fire rating	B - s3,d0	EN 13501-1
Thermal conductivity	0.036 W/(m•K)	EN 12667
Temperature	-40 °C +70 °C	
Dimensions	2000 x 1000 mm	
Surface	Smooth	
Base colour	Black	

K-FLEX® reserves the right to change data and technical requirements without notice.

PERFORMANCE

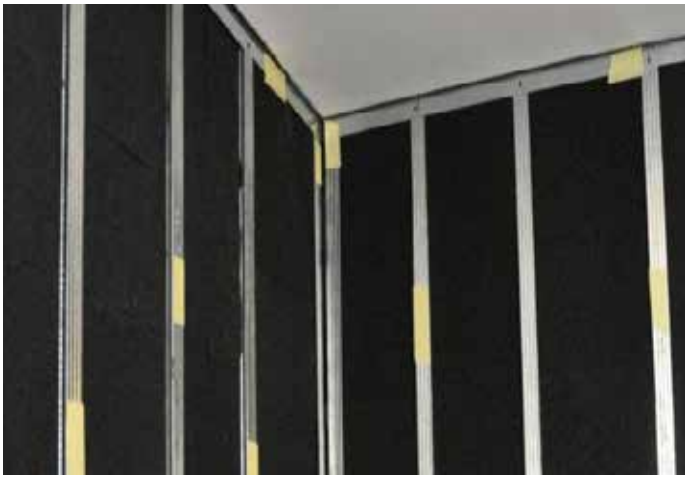


Freq.	R (dB)
100	25,9
125	28,5
160	26,8
200	31,0
250	32,9
315	35,8
400	39,3
500	45,3
630	48,1
800	51,6
1000	55,9
1250	59,0
1600	60,5
2000	61,5
2500	60,8
3150	61,8
4000	63,8
5000	68,8

To reduce lateral transmission of noise at the connection between the floor and the perimeter walls or ceiling, strips of separating material should be installed underneath the metal frame.

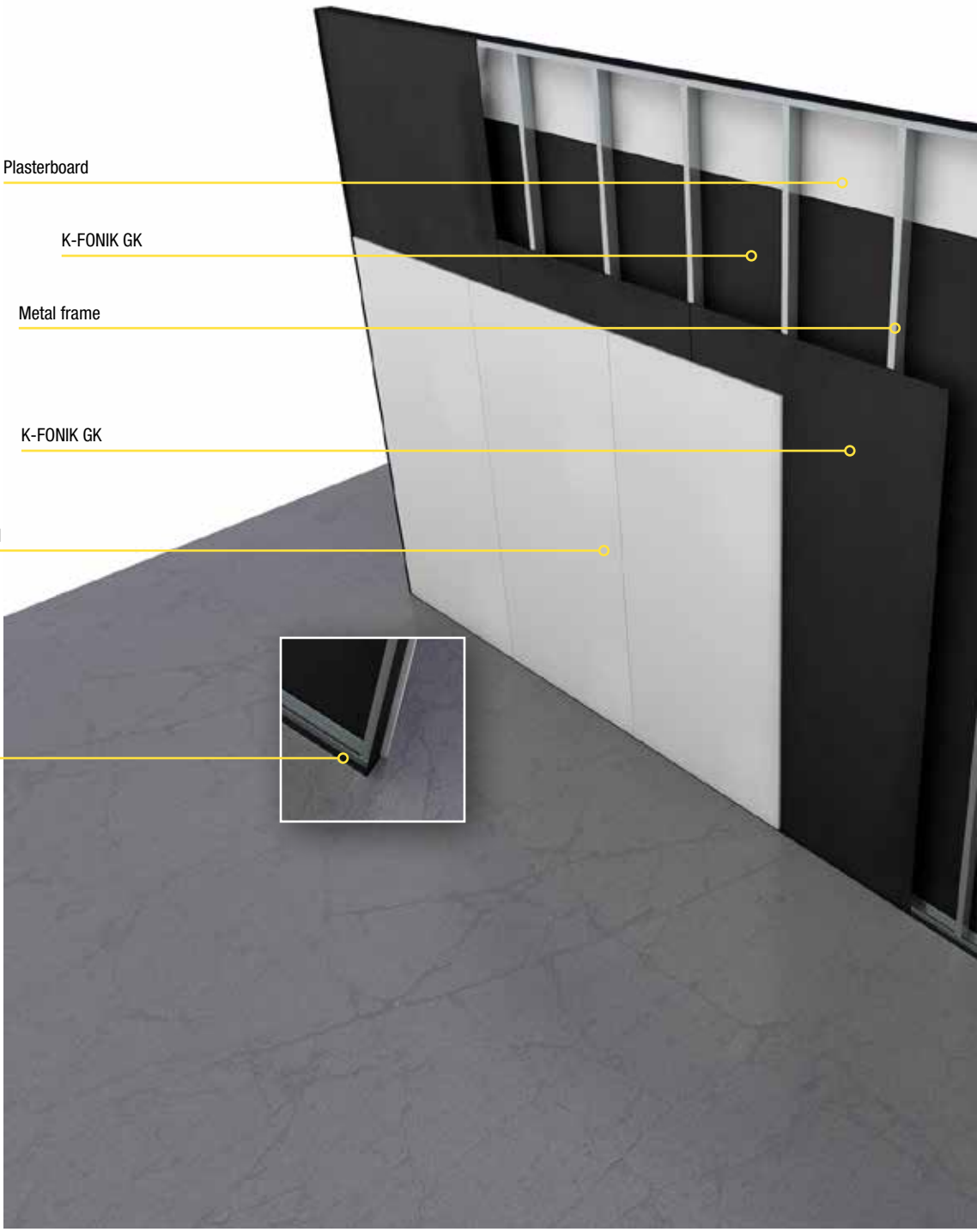
ACOUSTIC PERFORMANCE

R_w (C;C_{tr})=45(-1;-6)dB



LIGHTWEIGHT PLASTERBOARD WALLS

A typical installation of partition walls between rooms in residential, commercial or office buildings involves the construction of lightweight walls with plasterboard on a metal framework. A layer of soundproofing material is applied to the plasterboard. The boards are then fixed to the metal structure. Performance can be improved by filling the cavity inside the metal structure with sound absorbing material.



LIGHTWEIGHT PLASTERBOARD WALLS
Weighted sound reduction index R_w = 42 dB
Correction terms: C= -2dB; C_{tr}= -7dB

Description of components	Thickness (mm)
1 Plasterboard	13
2 K-FONIK GK	2
3 Metal frame	75
4 K-FONIK GK	2
5 Plasterboard	13

K-FLEX® K-FONIK GK ▸ TECHNICAL DATA

Property	Value	Test method
Material	High density elastomeric material	
Fire rating	B - s3,d0, FMVSS 302 Class 0	EN 13501 BS 476 Part 6/7
Temperature	-40 °C +70 °C	
Dimensions	1000 x 2000 mm; 1200 x 2000 mm; 1500 x 2000 mm - Roll 25 or 50 m	
Surface	Smooth1	
Weight	from 4 kg/m² to 8 kg/m²	
Base colour	Black	
Density	2000 kg/m³ (±10%)	

1 Different finishes available: ALU and non-woven fabric

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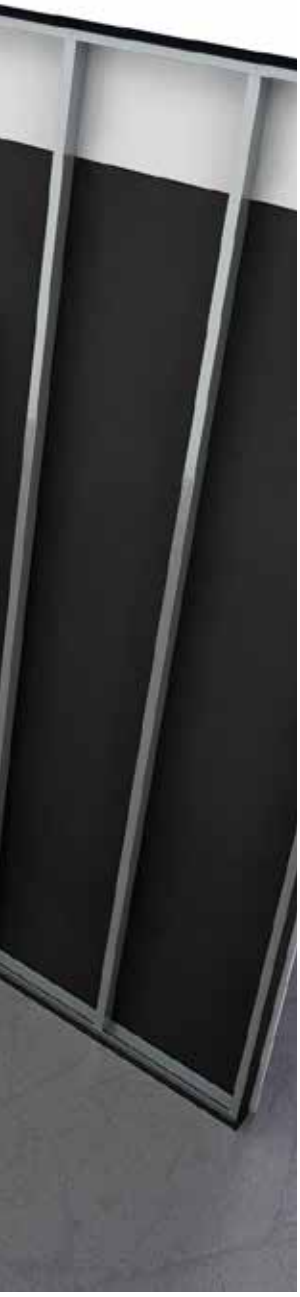
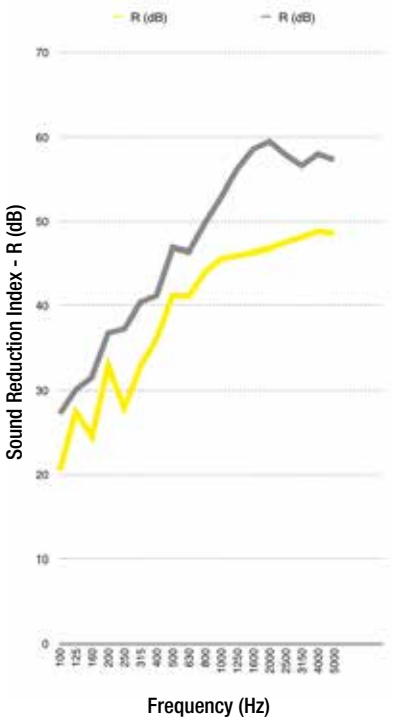


PERFORMANCE



Freq. (Hz)	Plasterboard R (dB)	Double Plasterboard R (dB)
100	20,5	27,2
125	27,4	30,1
160	24,5	31,6
200	32,9	36,8
250	27,9	37,3
315	32,8	40,4
400	36,1	41,2
500	41,2	46,9
630	41,1	46,4
800	44,0	49,8
1000	45,6	52,9
1250	46,0	56,2
1600	46,3	58,6
2000	46,8	59,5
2500	47,5	57,9
3150	48,1	56,6
4000	48,8	58,0
5000	48,6	57,3

ACOUSTIC PERFORMANCE

R_w (C;C_{tr})=42(-2;-7)dB

LIGHTWEIGHT DOUBLE PLASTERBOARD WALLS

LIGHTWEIGHT DOUBLE PLASTERBOARD WALLS
Weighted sound reduction index R_w = 48 dB
Correction terms: C= -1dB; C_{tr}= -6dB

Description of components	Thickness (mm)
1 Plasterboard	13
2 Plasterboard	13
3 K-FONIK GK	2
4 Metal frame	75
5 K-FONIK GK	2
6 Plasterboard	13
7 Plasterboard	13

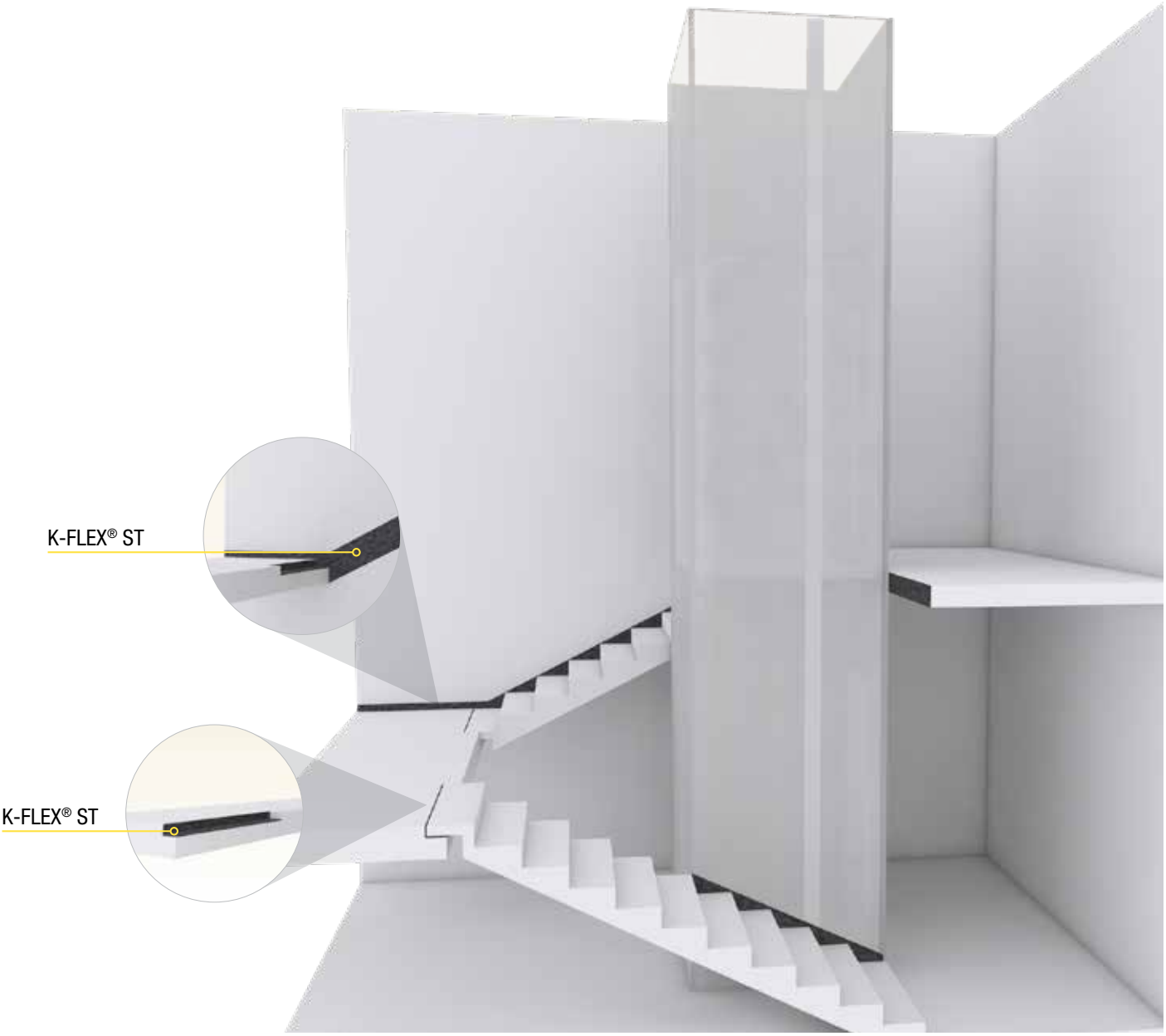
Using a double plasterboard configuration will improve performance.


Double Plasterboard Configuration

ACOUSTIC PERFORMANCE

R_w (C;C_{tr})=48(-1;-6)dB

ELEVATOR SHAFTS AND STAIRCASES



APPLICATION

Flights of stairs are among the structural elements that can generate and transmit noise.

Unlike floor screeds, you cannot make floating staircases, but you can take preventative action on the support points of the ramps.

Even in this situation the appropriate material can be installed at the support points and also where the stairs meet with the outside walls.

K-FLEX® ST ▸ TECHNICAL DATA

Property	Value	Test method
Material	Flexible elastomeric foam	EN 14304
Fire classification	B-s3,d0	EN 13501
Dimensions	h 1000 mm - Rolls 30 m	
Thickness	6 mm	
Dynamic stiffness	54 MN/m^3	UNI EN 29052
Surface	Smooth	
Weight	0,3 kg/m^2 (±10%)	
Base colour	Black	
Density	50 kg/m^3 (±10%)	
Compressibility	0,3±0,05 mm	UNI EN 12431

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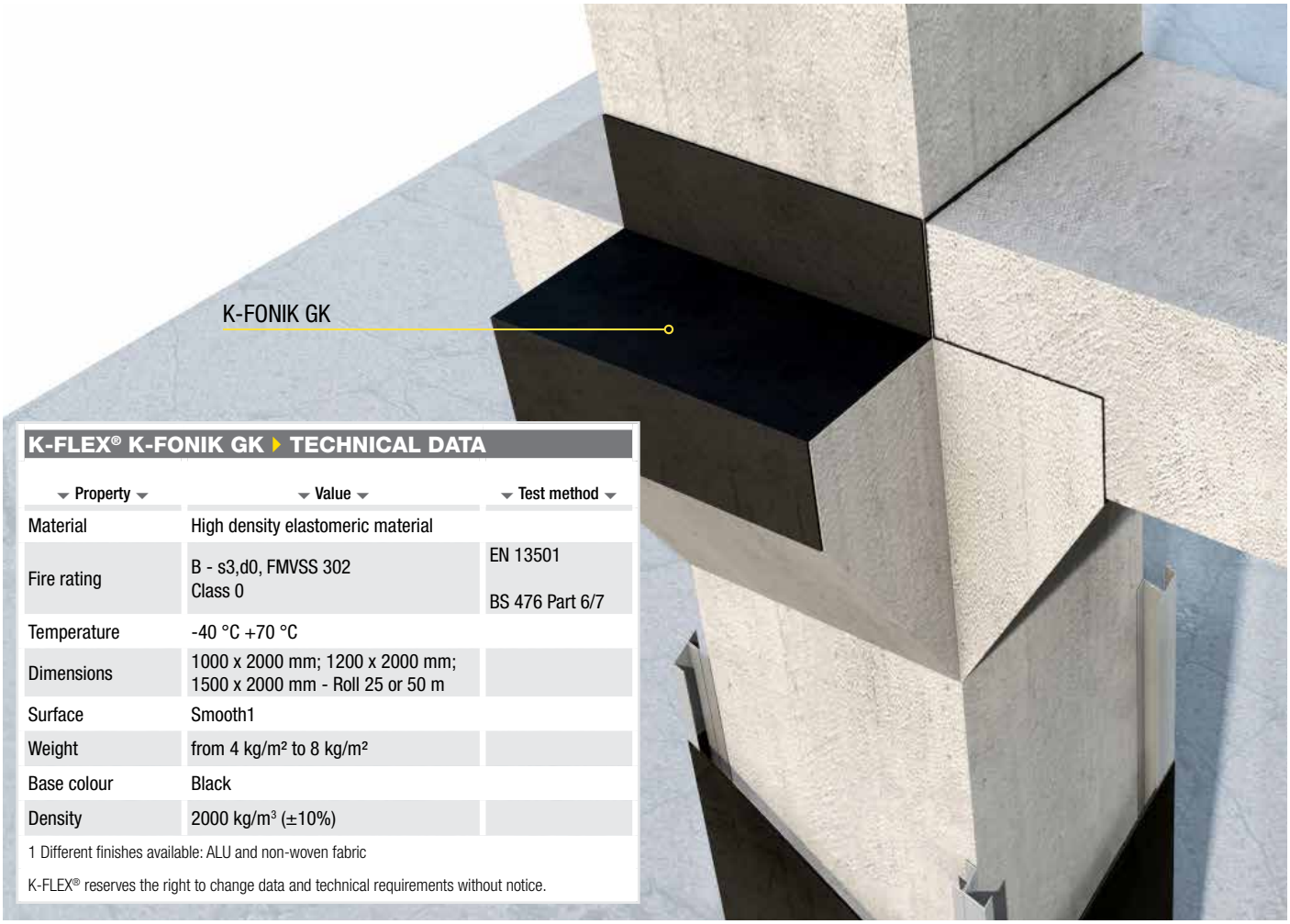
PILLARS AND BEAMS



K-FLEX® K-FONIK GK ▸ TECHNICAL DATA

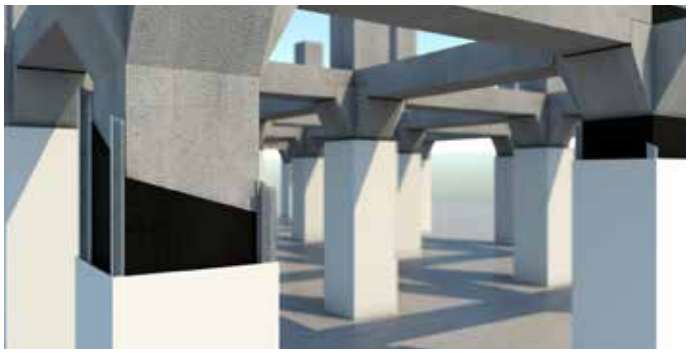
Property	Value	Test method
Material	High density elastomeric material	
Fire rating	B - s3,d0, FMVSS 302 Class 0	EN 13501 BS 476 Part 6/7
Temperature	-40 °C +70 °C	
Dimensions	1000 x 2000 mm; 1200 x 2000 mm; 1500 x 2000 mm - Roll 25 or 50 m	
Surface	Smooth1	
Weight	from 4 kg/m² to 8 kg/m²	
Base colour	Black	
Density	2000 kg/m³ (±10%)	

1 Different finishes available: ALU and non-woven fabric

K-FLEX® reserves the right to change data and technical requirements without notice.

APPLICATION

Insulation of structural elements of a building (beams and pillars), to prevent the propagation of vibration between walls and floors through structural elements. Where buildings have not been correctly designed, sound can propagate through several floors. In pre-fabricated buildings it is possible to prevent this by insulating the structural supports between pillars and beams, using a resilient material with the appropriate insulating and mechanical characteristics.



K-FLEX® K-FONIK ST GK ▸ TECHNICAL DATA

Property	Value	Test method
Material	Flexible elastomeric foam with high-density elastomeric material	
Weight	4,4 kg/m² (K-FONIK ST GK 072)	
Fire rating	B - s3,d0	EN 13501-1
Thermal conductivity	0.036 W/(m•K)	EN 12667
Temperature	-40 °C +70 °C	
Dimensions	2000 x 1000 mm	
Surface	Smooth	
Base colour	Black	

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AIRDUCT

APPLICATION

Excessive noise is often a problem in ventilation systems, this can result in rooms being too noisy after installation.

The nature of this noise depends mainly on the air flow rate and the shape of the duct cross-sectional area, as well as being affected by the position of the duct itself and its rotation angles.

A range of acoustic materials can be provided to effectively address the problem, the most common solution is duct taping and acoustic damping material. K-FONIK ST GK 072 or K-FONIK GK glued securely to the metal surface or wrapped around and mechanically fastened to the duct result in a sound insulating cocoon.

O.E.M. PRODUCTS

APPLICATION

Acoustic insulation and sound absorption products are widely used by OEMs in various industries and applications. Their use in household equipment improves acoustic comfort and increases the quality of the product.

Typical applications: ventilation systems, household appliances, pumps, compressors etc...

The use of K-FLEX® acoustic products in industrial equipment and machinery makes it possible to reduce noise and satisfy legislative requirements.

DRAINAGE PIPES

K-FLEX® K-FONIK ST GK ▸ TECHNICAL DATA

Property	Value	Test method
Material	Flexible elastomeric foam with high-density elastomeric material	
Weight	4,4 kg/m² (K-FONIK ST GK 072)	
Fire rating	B - s3,d0	EN 13501-1
Thermal conductivity	0.036 W/(m•K)	EN 12667
Temperature	-40 °C +70 °C	
Dimensions	2000 x 1000 mm	
Surface	Smooth	
Base colour	Black	

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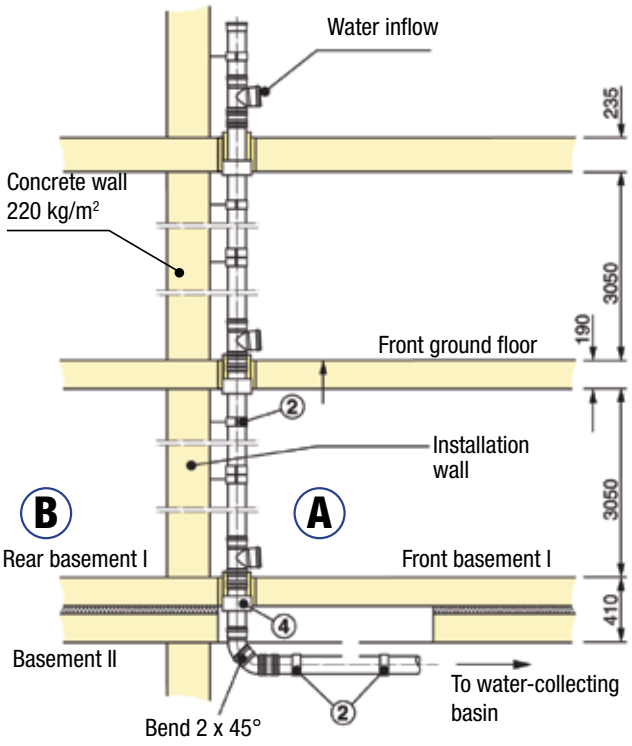
Acoustic insulation of services such as drainage pipes is an important acoustic issue in buildings.

K-FONIK ST GK 072 is an effective solution for sound insulation of drainage pipe installations.

Tested according to UNI EN 14366 this solution is certified for its performance for this application (Fraunhofer Institute certificate No. P-BA 209/2015e). This test allows for detailed evaluation of acoustic comfort in terms of sound pressure level attenuation in drainage pipe applications. Easy to install, K-FONIK ST GK 072 wrapped around the pipe provides an acoustic comfort in a variety of test conditions.

FRAUNHOFER INSTITUTE CERTIFICATE NO. P-BA 209/2015E



Measurements in accordance with DIN 4109 and DIN EN 14366 standards.

Test carried out by simulating a real installation in a multi-storey building.

Noise excitation by constant water flow with 0.5 litres/second, 1.0 l/s, 2.0 l/s and 4.0 l/s respectively.

INSULATION SOUND LEVEL $L_{AFEQ,N}$ (L_{IN}) [DB(A)], ACCORDING TO DIN 4109

Flow rate [l/s]		0,5	1	2	4
Reference set-up Wastewater system without pipe covering. Rigid installation of the wastewater system	(A) UG front	49	51	53	55
	(B) UG rear	35	36	36	38
Test set-up Wastewater system with acoustic insulation K-FONIK ST GK 072	(A) UG front	38	39	38	41
	(B) UG rear	24	26	26	28
A-sound pressure level reduction $\Delta L_{A,F}$ in dB	(A) UG front	11	12	15	14
	(B) UG rear	11	10	10	10


K-FONIK
PRODUCT RANGE

PRODUCT RANGE

K-FLEX® offers a wide range of acoustic insulation solutions for many different applications to provide a more comfortable environment.

			SOUND INSULATION				SOUND ABSORPTION						SYSTEM
	WORK SECTOR	APPLICATIONS	K-FLEX® ST	K-FLEX® K-FONIK ST GK	K-FLEX® K-FONIK GK	K-FLEX® K-FONIK GV	K-FLEX® K-FONIK OPEN CELL 160	K-FLEX® K-FONIK OPEN CELL 240	K-FLEX® K-FONIK B	K-FLEX® K-FONIK P	K-FLEX® K-FONIK PE GK	K-FLEX® K-FONIK PU GK	K-FLEX® INDUSTRIAL*
	BUILDING	Floors	•										
		Walls		•	•		•	•	•	•			
		Structure	•	•	•								
	HVAC	Ventilation ducts and drainage pipes		•	•		•	•	•		•		
	INDUSTRIAL and OIL & GAS	Piping, equipment and plants			•	•		•				•	•
OEM	**OEM PRODUCTS**	Machinery covers, engine compartments		•	•		•	•	•	•	•		
	TRAIN & SHIPBUILD-ING	Vani Motore, Partizioni, Impianti tecnici				•							
	AUTOMOTIVE	Engine noise insulation and frames, sound absorption for roof frames, driver cabins		•	•		•	•					

* Refer to K-FLEX® K-FONIK INDUSTRIAL brochure

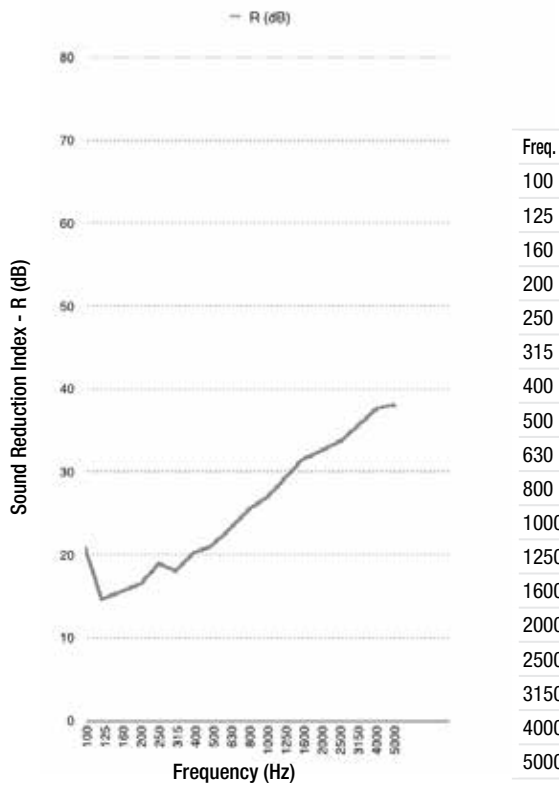
K-FLEX®
K-FONIK GK / GV

High-density elastomeric acoustic insulating panel for building, OEM and industrial applications. **The product is lead-free and therefore does not represent a health risk**.

K-FONIK GK is a high density elastomeric material based on partially reticulated polymers with viscoelastic properties designed for acoustic insulation applications. Installed as a mass barrier, its special sound insulation characteristics make it an excellent product for insulation of walls and ceilings in civil applications, pipe insulation in industrial applications and damping reduction in OEM applications.

K-FONIK GV is a high density elastomeric material based on partially reticulated polymers and fireproof mineral fillers. Its viscoelastic properties make it ideal for acoustic insulation in shipbuilding and railway applications.

ACOUSTIC PERFORMANCE



Freq. (Hz)	R (dB)
100	20,9
125	14,5
160	15,6
200	16,6
250	18,8
315	17,9
400	20,2
500	21,1
630	23,1
800	25,2
1000	27,1
1250	29,2
1600	31,5
2000	32,6
2500	33,6
3150	35,6
4000	37,4
5000	37,9

R_w ($C;C_{tr}$)=27(-1;-4)dB

APPLICATION

K-FONIK GK is ideal for sound insulation of walls, ceilings, acoustic cabins, drainage systems, OEM sound insulation applications, etc.

K-FONIK GV is ideal for the railway and shipbuilding industries.

RANGE

K-FONIK GK
from 4 to 8 Kg/m²
High-density elastomeric material

K-FONIK GV
from 4 to 8 Kg/m²
High-density elastomeric material

Please see the price list for the full range

K-FLEX® K-FONIK GK ▸ TECHNICAL DATA

Property	Value	Test method
Material	High density elastomeric material	
Fire rating	B - s3,d0[1], IMO A653 (CE MARINE)[2], FMVSS 30[2] Class 0	EN 13501 BS 476 Part 6/7
Temperature	-40 °C +70 °C	
Dimensions	1000 x 2000 mm; 1200 x 2000 mm; 1500 x 2000 mm - Roll 25 or 50 m	
Surface	Smooth[3]	
Weight	from 4 kg/m² to 8 kg/m²	
Base colour	Black (GK) White (GV)	
Density	2000 kg/m³ (±10%)	

[1] Only for K-FONIK GK on request [2] Only for K-FONIK GV
[3] Different finishes available: ALU and non-woven fabric

K-FLEX® reserves the right to change data and technical requirements without notice.

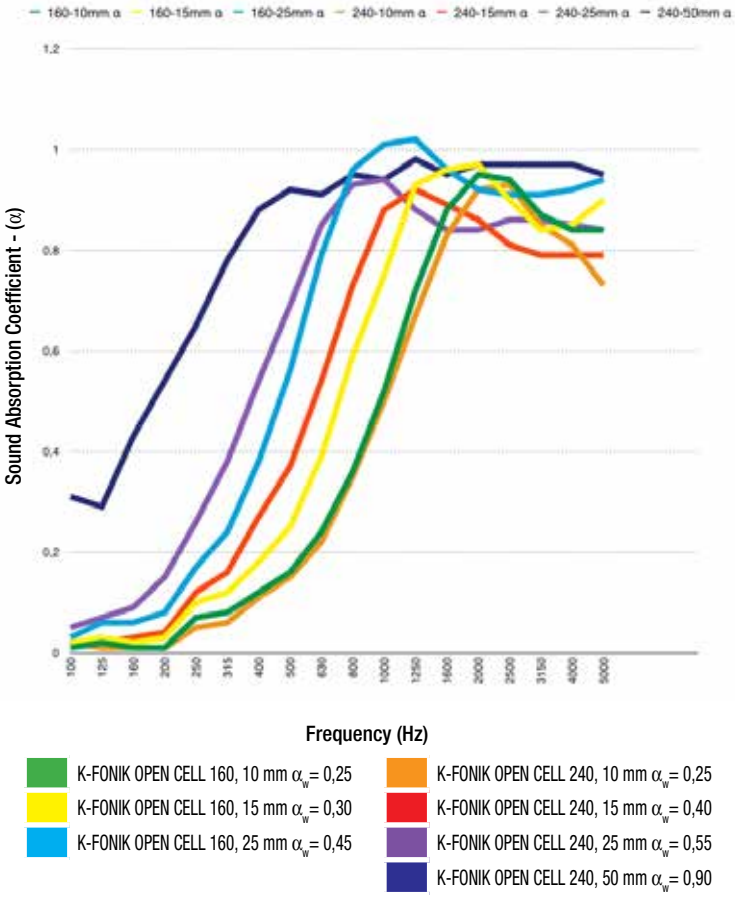
K-FLEX®
K-FONIK OPEN CELL

K-FONIK OPEN CELL is an open cell Flexible Elastomeric Foam designed for sound absorption.
Its viscoelastic properties, open cell structure and good air flow resistance make it excellent for acoustic insulation in building, HVAC/R, pipes and industrial applications. It combines excellent acoustic performances and insulation characteristics.

APPLICATION

K-FONIK OPEN CELL is ideal for sound absorption application; industrial pipes, building, OEM products and HVAC/R.

ACOUSTIC PERFORMANCE



- K-FONIK OPEN CELL 160, 10 mm α_w= 0,25
- K-FONIK OPEN CELL 160, 15 mm α_w= 0,30
- K-FONIK OPEN CELL 160, 25 mm α_w= 0,45
- K-FONIK OPEN CELL 240, 10 mm α_w= 0,25
- K-FONIK OPEN CELL 240, 15 mm α_w= 0,40
- K-FONIK OPEN CELL 240, 25 mm α_w= 0,55
- K-FONIK OPEN CELL 240, 50 mm α_w= 0,90

RANGE

K-FONIK OPEN CELL
160 - 240

Please see the price list for the full range

K-FLEX® K-FONIK OPEN CELL ▸ TECHNICAL DATA

Property	Value	Test method
Material	Flexible elastomeric foam open cell	
Density	OPEN CELL 160: ≥ 100 kg/m³ OPEN CELL 240: 240 kg/m³ (-20 / +120 kg/m³)	
Thermal conductivity	OPEN CELL 240: 0,056 W/(m•K) OPEN CELL 160: 0,048 W/(m•K)	EN 12667
Fire rating	C-s3,d0 Class 1	EN 13501-1 BS 476 Part 6/7
Temperature	-40 °C +85 °C	
Thickness	from 10 to 500 mm	
Base colour	Black	
Modulus (MPa)	22 ± 3.7 (160) 57.7 ± 8.0 (240)	
Elongation to break (%)	114 ± 33 (160) 140 ± 47 (240)	
Insertion Loss	K-FONIK 160 10mm Rw=5 dB K-FONIK 160 15mm Rw=8 dB K-FONIK 160 25mm Rw=9 dB K-FONIK 240 10mm Rw=8 dB K-FONIK 240 15mm Rw=10 dB K-FONIK 240 25mm Rw=14 dB	

K-FLEX® reserves the right to change data and technical requirements without notice.

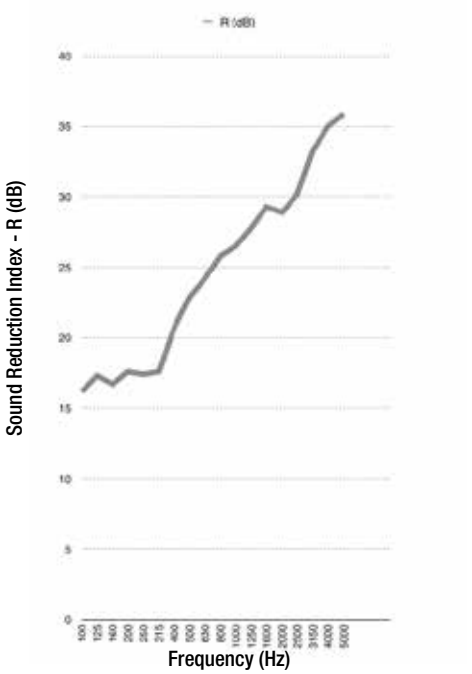
K-FLEX®
K-FONIK ST GK

Smooth elastomeric sound insulation panel in various thicknesses, coupled with a high density elastomeric sheet.
The product is lead-free and therefore does not represent a health risk.
K-FONIK ST GK combines the features of K-FONIK GK with a layer of our elastomeric K-FLEX® ST.

APPLICATION

K-FONIK ST GK is ideal for sound insulation of walls, ceilings, acoustic cabins, drainage systems, OEM sound insulation applications, etc.

ACOUSTIC PERFORMANCE



Freq. (Hz)	R (dB)
100	16,2
125	17,3
160	16,7
200	17,6
250	17,4
315	17,6
400	20,7
500	22,9
630	24,2
800	25,8
1000	26,5
1250	27,8
1600	29,3
2000	28,9
2500	30,2
3150	33,3
4000	35,0
5000	35,9

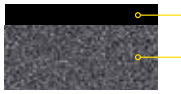
R_w $(C;C_{tr})$=26 (0;-3)dB

RANGE

K-FONIK ST GK 074

K-FONIK ST GK 072

K-FONIK ST GK 070



K-FONIK ST GK ST 074

Please see the price list for the full range

K-FLEX® K-FONIK ST GK ▸ TECHNICAL DATA

Property	Value	Test method
Material	Flexible elastomeric foam with high-density elastomeric material	
Weight	4,4 kg/m² (K-FONIK ST GK 072)	
Fire rating	B - s3,d0	EN 13501-1
Thermal conductivity	0.036 W/(m•K)	EN 12667
Temperature	-40 °C +70 °C	
Dimensions	2000 x 1000 mm	
Surface	Smooth	
Base colour	Black	

K-FLEX® reserves the right to change data and technical requirements without notice.

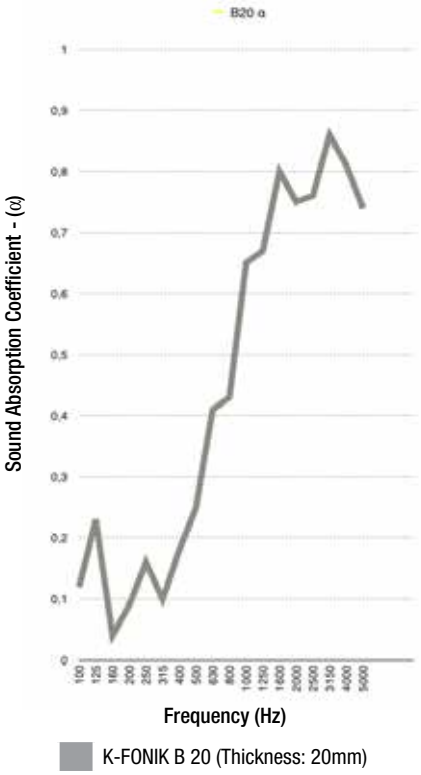
K-FLEX®
K-FONIK B

Embossed surface polyurethane foam sheet ideal for acoustic absorption. **K-FONIK B** material is specifically designed for situations where sound absorption is a priority. It is made of open cell flexible polyurethane foam with a density of 25/30 kg/m³.

APPLICATION

K-FONIK B is widely used in gyms, conference rooms, rifle ranges, recording studios, radio/television studios, moveable acoustic panels, engine rooms, etc.

ACOUSTIC PERFORMANCE



	B20
Freq. (Hz)	α
100	0,12
125	0,23
160	0,04
200	0,09
250	0,16
315	0,10
400	0,18
500	0,25
630	0,41
800	0,43
1000	0,65
1250	0,67
1600	0,80
2000	0,75
2500	0,76
3150	0,86
4000	0,81
5000	0,74
α_w	0,28

RANGE

K-FONIK B 20

Please see the price list for the full range

K-FLEX® K-FONIK B ▸ TECHNICAL DATA

Property	Value	Test method
Material	Polyurethane foam	
Density	25 ÷ 30 kg/m³	
Temperature	-40 °C +70 °C	
Dimensions	1000 x 2000 mm - also available in rolls of different sizes	
Surface	Embossed	
Thickness	20 mm	
Base colour	Black	

K-FLEX® reserves the right to change data and technical requirements without notice.

K-FLEX®
K-FONIK PU GK

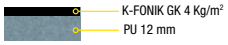
K-FONIK PU GK is a sound absorption material with high density elastomeric sheet specifically designed to provide a solution to particular soundproofing problems.

APPLICATION

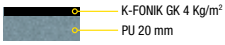
K-FONIK PU GK is ideal for the sound insulation of fixed or false walls, ceilings and false ceilings, garages, acoustic cabins and drainage systems.

RANGE

K-FONIK PU GK



K-FONIK PU GK



Please see the price list for the full range

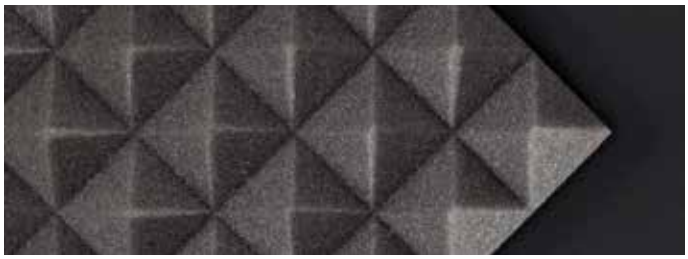
K-FLEX® K-FONIK PU GK ▸ TECHNICAL DATA

Property	Value	Test method
Material	Polyurethane foam and high density mass	
Fire rating	Self-extinguishing	
Temperature	-40 °C +70 °C	
Dimensions	1000 x 2000 mm	
Surface	Surface Smooth or embossed	
Base colour	Black	

K-FLEX® reserves the right to change data and technical requirements without notice.

K-FLEX®
K-FONIK P

K-FONIK P is a sound absorption material manufactured with a pyramid-shaped surface, It is the ideal acoustic insulation solution for rooms etc.



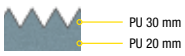
Example of possible application

APPLICATION

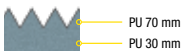
K-FONIK P is widely used in gyms, conference rooms, rifle ranges, recording studios, radio/television studios, moveable acoustic panels, engine rooms, etc.

RANGE

K-FONIK P 50



K-FONIK P 100



Please see the price list for the full range

ACOUSTIC PERFORMANCE

P50 - α_w = 0,34
P100 - α_w = 0,82

K-FLEX® K-FONIK P ▸ TECHNICAL DATA

Property	Value	Test method
Material	Polyurethane foam	
Density	25 ÷ 30 kg/m³	
Fire rating	Self-extinguishing	
Temperature	-40 °C +70 °C	
Dimensions	1000 x 1000	
Surface	Pyramid structure	
Thickness	50 - 100 mm	
Base colour	Dark grey	

K-FLEX® reserves the right to change data and technical requirements without notice.

K-FLEX® ST

APPLICAZIONI

K-FLEX® ST è ideale per l'isolamento acustico di pavimenti galleggianti. Le sue proprietà meccaniche riducono la trasmissione del rumore impattivo incrementando il valore Δ Lw.

GAMMA

K-FLEX® ST

K-FLEX® ST 6 mm

Per l'intera gamma consultare listino prezzi.

PERFORMANCE ACUSTICHE

ΔL_w = 25 dB
s't = 54 MN/m³

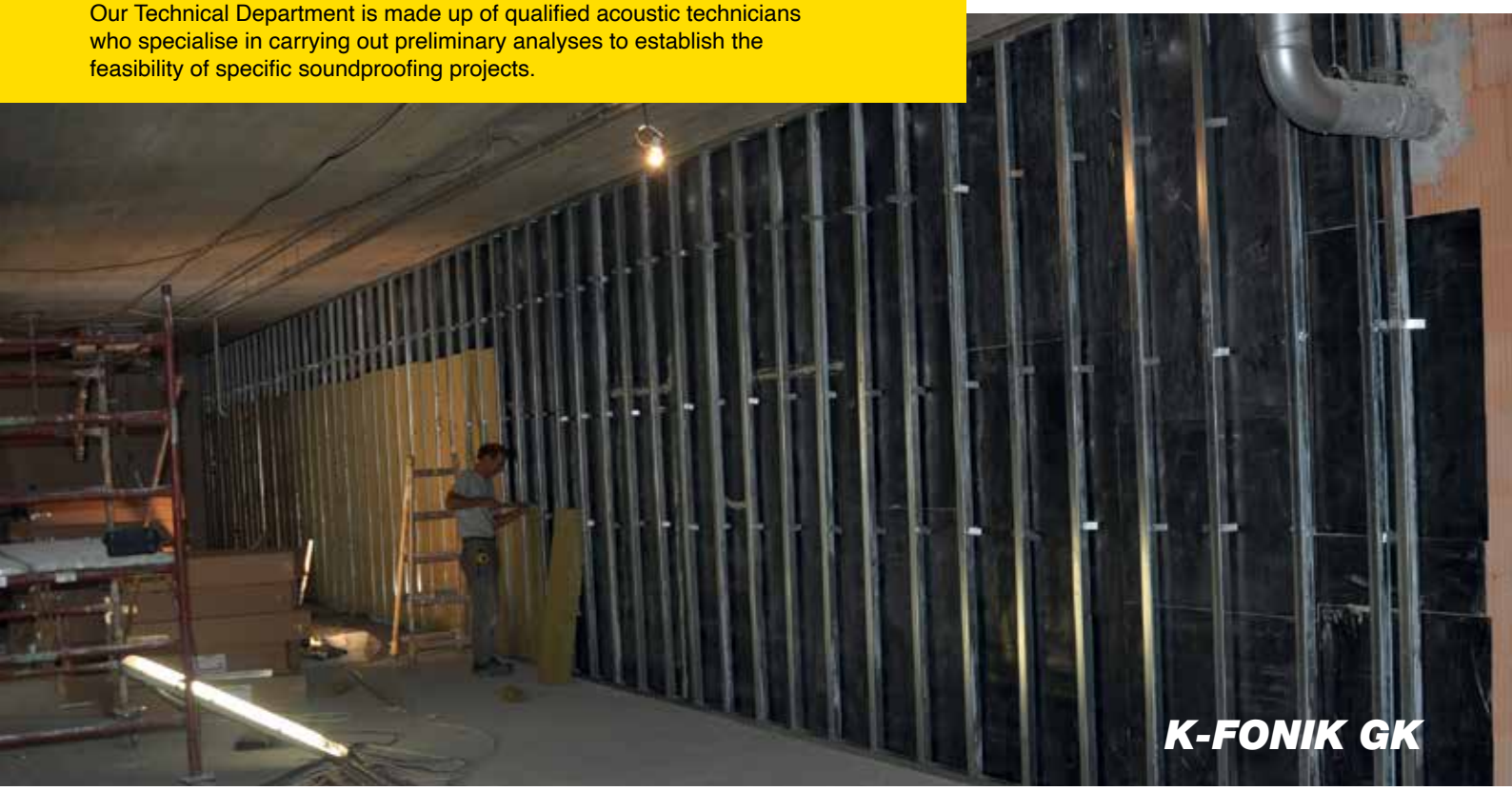
K-FLEX® ST ▸ TECHNICAL DATA

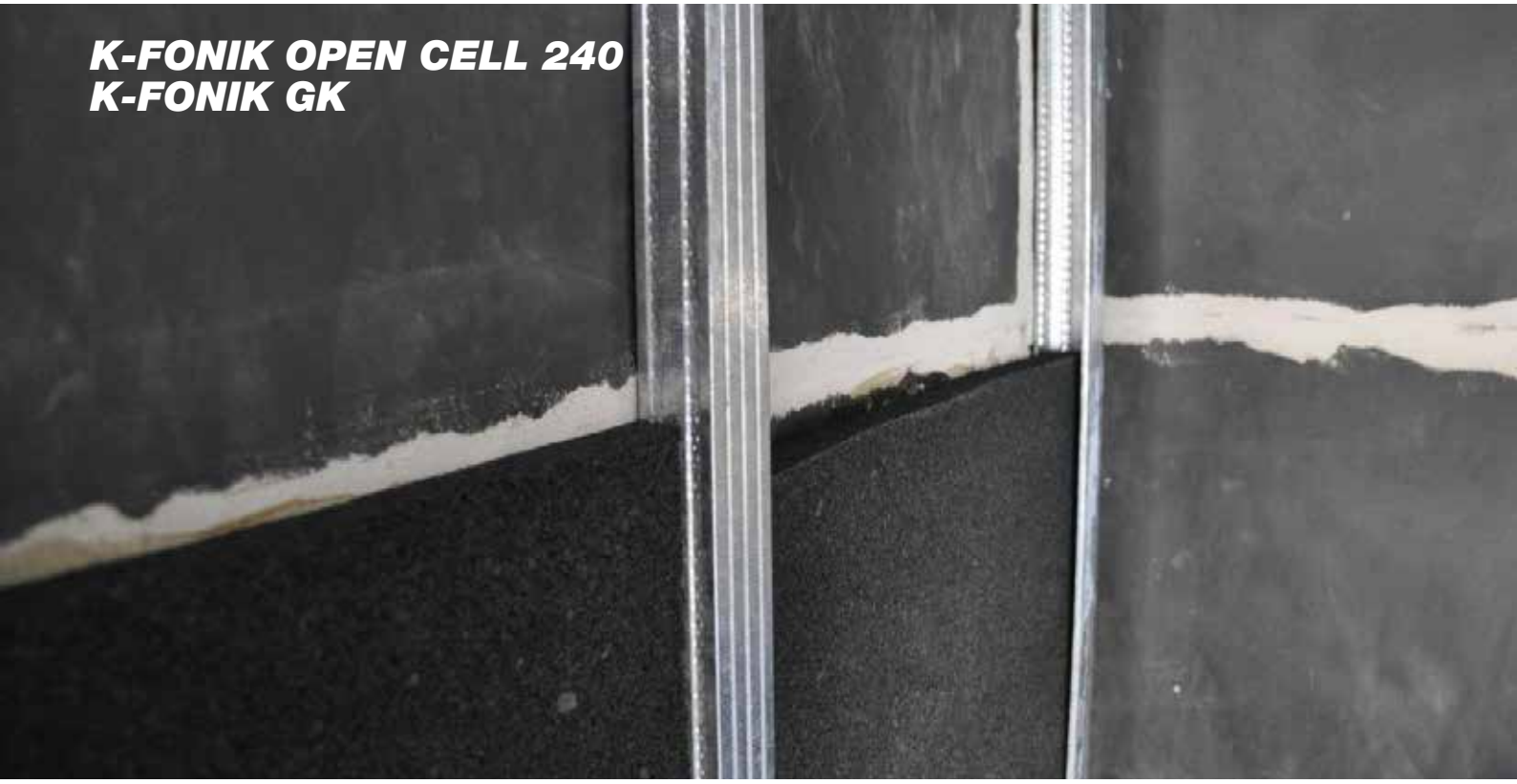
Property	Value	Test method
Material	Flexible elastomeric foam	EN 14304
Fire classification	B-s3,d0	EN 13501
Dimensions	h 1000 mm - Rolls 30 m	
Thickness	6 mm	
Dynamic stiffness	54 MN/m³	UNI EN 29052
Surface	Smooth	
Weight	0,3 kg/m² (±10%)	
Base colour	Black	
Density	50 kg/m³ (±10%)	
Compressibility	0,3±0,05 mm	UNI EN 12431

K-FLEX® reserves the right to change data and technical requirements without notice.

PROJECTS

Our Technical Department is made up of qualified acoustic technicians who specialise in carrying out preliminary analyses to establish the feasibility of specific soundproofing projects.




K-FONIK OPEN CELL 240
K-FONIK GK


K-FONIK GK


K-FONIK ST GK 072


K-FONIK GK

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2021