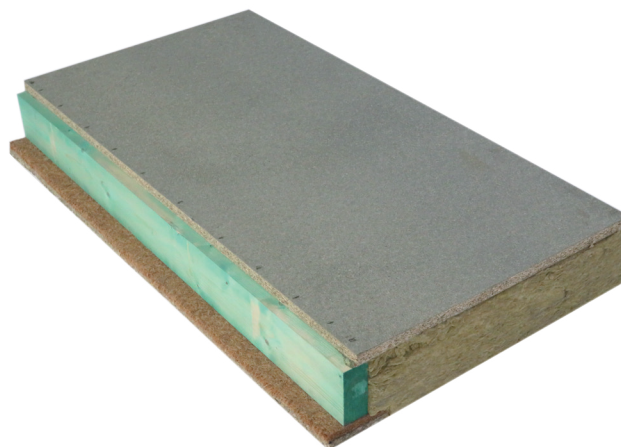


DESCRIPTION

The phonotech[®] modular system makes it possible to create a floating roof offering an excellent sound isolation. The phonotech[®] modular element is based on phonotech[®] nailing soundbattens, factory-assembled with the phonotech[®] complex (mineral wool and waterproof particleboard), making on-site assembly much simpler and faster.



APPLICATION

The phonotech[®] element is applied as acoustic isolation lining for flat and inclined roofs.

COMPOSITION

The phonotech[®] element features a phonotech[®] nailing soundbatten, as well as a mineral wool slab combined with a factory-assembled waterproof particleboard.

THE SYSTEM

Phonotech[®] = element (acoustic foam + coco matting + impregnated wood) + stone wool + particleboard

Phonotech [®]	Element (mm)		Acoustic foam (mm)		Coco matting (mm)		Impregnated wood (mm)	Specific density stone wool (mm)	Waterproof particleboard (mm)
DK-45	40	=	10	+	10	+	20	40	22
DK-65	60	=	20	+	10	+	30	60	22
DK-85	80	=	20	+	10	+	50	80	22
DK-105	100	=	20	+	10	+	70	100	22
DK-125	120	=	20	+	10	+	90	120	22
DK-145	140	=	20	+	10	+	110	140	22
DK-165	160	=	20	+	10	+	130	160	22
DK-185	180	=	20	+	10	+	150	180	22



ACCESSORIES

Start and finish soundbattens, fixing and filling accessories.

INSTALLATION

Under normal conditions, a single person can install the elements. Since the elements are fitted using nail dowels and/or screws, there is no drying time required. This considerably reduces installation time.



FINISHES

After installing the phonotech® elements, the roof covering can be installed.

ACOUSTIC PERFORMANCE

Experiments and many laboratory measurements show that phonotech® roofing elements offer a very high noise attenuation index.

The phonotech® modular system ensures perfect acoustic isolation.

The reduction values depend on the existing support framework (concrete or wood).

See the construction profile sheets.

THERMAL PERFORMANCE / DIMENSIONS / WEIGHT

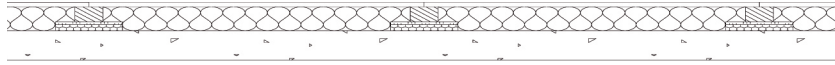
	Thermal performance	Dimensions (mm)				Weight (kg)	
Phonotech®	R element =	Length	Width	Finished width	Thickness	Element	Element per m²
DK-45	1,41 m². K/W	1200	660	600	62	13,7	19,1
DK-65	1,95 m². K/W	1200	660	600	82	14,6	20,3
DK-85	2,49 m². K/W	1200	660	600	102	15,7	21,8
DK-105	3,03 m². K/W	1200	660	600	122	16,8	23,3
DK-125	3,57 m². K/W	1200	660	600	142	17,8	24,8
DK-145	4,11 m². K/W	1200	660	600	162	18,9	26,2
DK-165	4,65 m². K/W	1200	660	600	182	19,9	27,7
DK-185	5,19 m². K/W	1200	660	600	202	21,1	29,2



APPLICATION ON A FLAT CONCRETE ROOF COVERED WITH ROOFING FELT

DESCRIPTION

Roofing in elements DK-85 (also valid for: DK-105/DK-125/DK-145/ DK-165/DK-185) on concrete base.



DIMENSIONS (MM)

Construction thickness 102 / 122 /
142 / 162 /
182 / 202

WEIGHT (KG)

Added weight per m² 21,8 / 23,3 /
24,8 / 26,2/
27,7 / 29,2

COMPOSITION

System composition : Composition of the roof from bottom to top

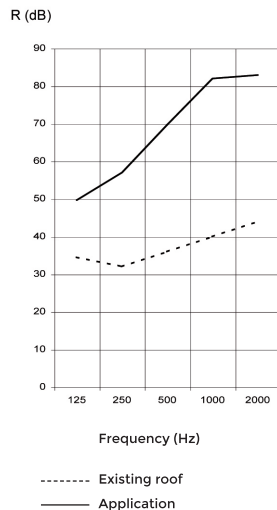
- ▶ Existing roof, concrete layer of 100 mm, 200 kg/m²
- ▶ Vapour barrier
- ▶ Phonotech® DK-85 elements (DK-105/DK-125/DK-145/DK-165/DK-185)
- ▶ Roofing felt

ACCESSORIES

The modular system is provided with all corresponding fixing accessories and materials:

- ▶ Phonotech® 80mm start soundbattens (100mm/120mm/140mm/160mm/180mm)
- ▶ Acrylic sealant
- ▶ Plugs
- ▶ 45mm screws
- ▶ Washers

ACOUSTIC PERFORMANCE



ACOUSTIC REDUCTION (DB)

Octave bands (Hz)	Existing roof	Application
125	34,5	49,7
250	32	57,0
500	36	69,7
1000	40	82,0
2000	44	82,9

REDUCTION INDICES (DB(A))

Octave bands (Hz)	Existing roof	Application
R traffic	37,1	61,4
R rail	39,7	70,7
R air	37,8	65,2
R music	36,9	61,4

THERMAL PERFORMANCE

Element	Rc values
DK-45	1,41
DK-65	1,95
DK-85	2,49
DK-105	3,03
DK-125	3,58
DK-145	4,11
DK-165	4,65
DK-185	5,19

ACOUSTIC AND THERMAL PERFORMANCE

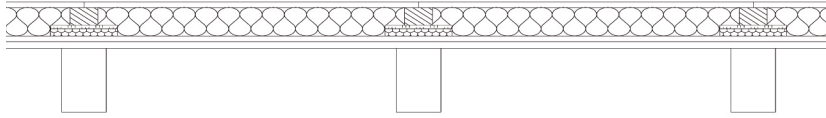
Besides the DK-85 element, we also offer elements DK-105/ DK-125/DK-145/DK-165/DK-185 when greater thermal insulation is required. The acoustic characteristics of these elements increases by a minimum of 3dB(A) compared to the DK-85 element.

Product	125 Hz	250 Hz	500 Hz	1000 Hz	2000 Hz	Ra traffic	Ra rail	Ra air	Ra music
DK-45	44,7	51,0	64,7	78,8	80,9	56,1	65,3	59,6	56,0
DK-65	47,7	54,5	71,7	83,0	79,4	59,4	68,9	63,1	59,3
DK-85 *	49,7	57,0	69,7	82,0	82,9	61,4	70,7	65,2	61,4

APPLICATION ON A FLAT TIMBER ROOF COVERED IN ROOFING FELT

DESCRIPTION

Roofing in elements DK-85 (also valid for: DK-105/DK-125/DK-145/ DK-165/DK-185) and cement-wood plate of 16mm on wooden frame with weatherproofing.



DIMENSIONS (MM)

Construction thickness 118 / 138 /
158 / 178 /
197 / 218

WEIGHT (KG)

Added weight per m² 44,8 / 46,3 /
47,8 / 49,2 /
50,7 / 52,2

COMPOSITION

System composition : Composition of the roof from bottom to top

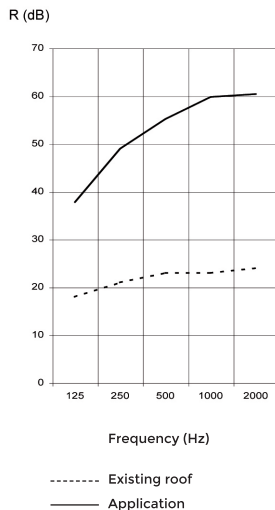
- ▶ Existing roof, rafters 70 x 170 with 19 mm cladding
- ▶ Vapour barrier
- ▶ Fibre cement plate of 16 mm
- ▶ Phonotech® DK-85 elements (DK-105/DK-125/DK-145/DK-165/DK-185)
- ▶ Roofing felt

ACCESSORIES

The modular system is provided with all corresponding fixing accessories and materials:

- ▶ Phonotech® 80mm start soundbattens (100mm/120mm/140mm/160mm/180mm)
- ▶ Acrylic sealant
- ▶ 35 and 45 mm screws
- ▶ Washers
- ▶ 16mm cladding per cement-wood panel

ACOUSTIC PERFORMANCE



ACOUSTIC REDUCTION (DB)

Octave bands (Hz)	Existing roof	Application
125	18	37,8
250	21	49,0
500	23	55,2
1000	23	59,8
2000	24	60,4

REDUCTION INDICES (DB(A))

Octave bands (Hz)	Existing roof	Application
R traffic	22,6	50,0
R rail	23,3	57,3
R air	22,9	54,0
R music	22,5	50,1

THERMAL PERFORMANCE

Elément	Rc values
DK-45	1,41
DK-65	1,95
DK-85	2,49
DK-105	3,03
DK-125	3,58
DK-145	4,11
DK-165	4,65
DK-185	5,19

ACOUSTIC AND THERMAL PERFORMANCE

Besides the DK-85 element, we also offer elements DK-105/ DK-125/DK-145/DK-165/DK-185 when greater thermal insulation is required. The acoustic characteristics of these elements increases by a minimum of 3dB(A) compared to the DK-85 element.

Product	125 Hz	250 Hz	500 Hz	1000 Hz	2000 Hz	Ra traffic	Ra rail	Ra air	Ra music
DK-45	25,0	39,1	52,6	59,3	56,5	38,1	49,4	43,8	38,3
DK-45	30,5	42,1	51,6	58,3	58,5	43,2	52,7	48,0	43,3
DK-45	34,0	45,1	54,1	60,3	60,5	46,5	55,5	51,1	46,6
DK-65	26,2	39,3	52,2	59,0	54,6	39,2	49,8	44,6	39,4
DK-65	31,7	42,3	51,2	58,0	56,6	44,1	52,7	48,5	44,2
DK-65	35,2	45,3	53,7	60,0	58,6	47,4	55,4	51,5	47,5
DK-85	28,8	43,0	53,7	58,8	56,4	41,9	52,2	47,4	42,1
DK-85	34,3	46,0	52,7	57,8	58,4	46,7	54,7	51,1	46,8
DK-85 *	37,8	49,0	55,2	59,8	60,4	50,0	57,3	54,0	50,1