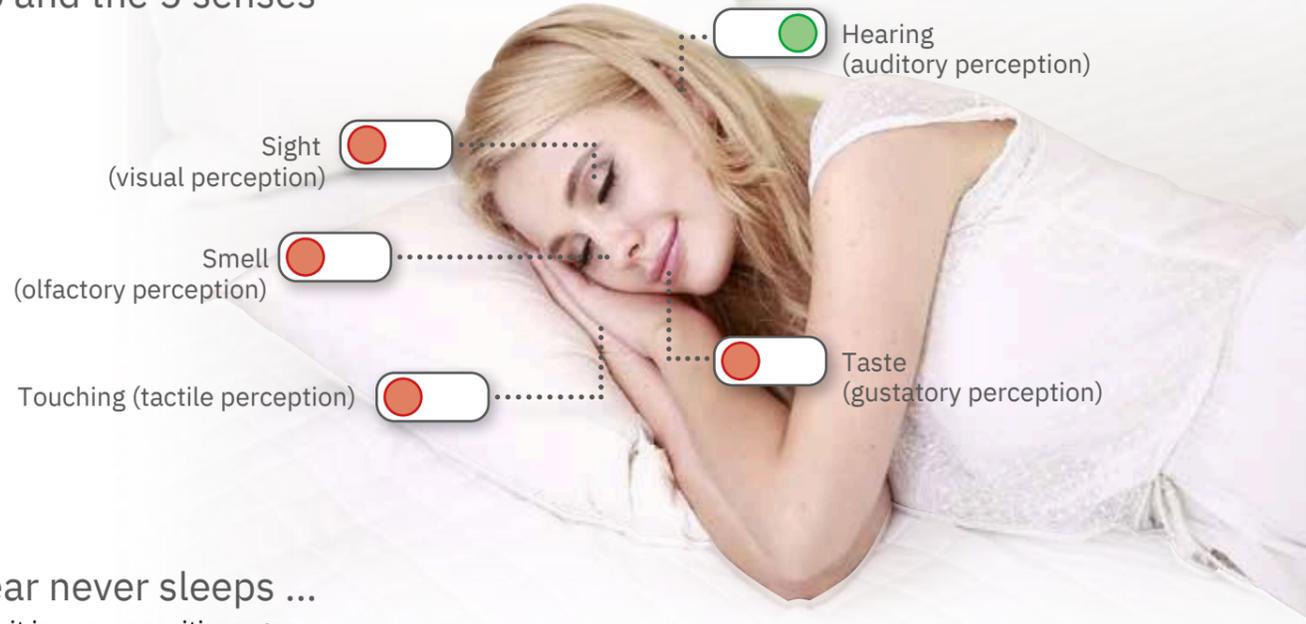




**WAVE**  
Acoustics & Flooring

## Why sound insulation is so important

### Sleep and the 5 senses



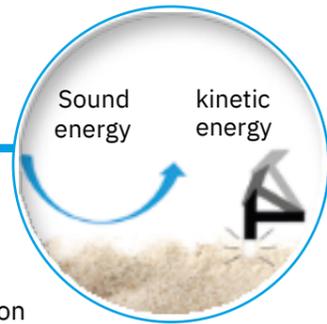
### The ear never sleeps ...

because it is a very sensitive organ that even notices the slightest noise during sleep. How else would you hear the alarm clock?

This is why even more environmental agencies and government institutions are now dealing with the prevailing noise problem.

Excessive noise is proven to be harmful to human health and affects us in terms of school, home and work routine. It can lead to insomnia, cause cardiovascular or psychophysiological impairments, reduce performance and cause irritability or behavioural changes in social interaction. (WHO, 2017)

PhoneStar from Wolf Bavaria can provide very effective protection against these noise disturbances.



### This is how PhoneStar works

Sound wave before



PhoneStar



Microscopic vibrations

Sound wave after



- Longitudinal sound wave transmission
- Longitudinal sound waves affect flanking noise transmission. PhoneStar has a high internal damping capacity due to the heavy, but soft, sand filling. The principle is similar to striking sand with a hammer.
- There is no sound wave created, therefore no longitudinal sound waves and no flanking conditions.
- PhoneStar 3 in 1
- The multilayer structure and irregular shaped casing, the soft loose sand filling and the high mass of the PhoneStar board all contribute to substantially reducing the energy in the sound wave.



## Our solution against noise

PhoneStar is approved as a sound insulation panel for use on floors, walls, ceilings and sloping ceilings in ETA 20/0371.

At the same time, PhoneStar is certified as a sound-absorbing dry screed.

- + Reduces airborne and impact sound
- + Made from natural materials - sand and cardboard



## Environmentally friendly Effective

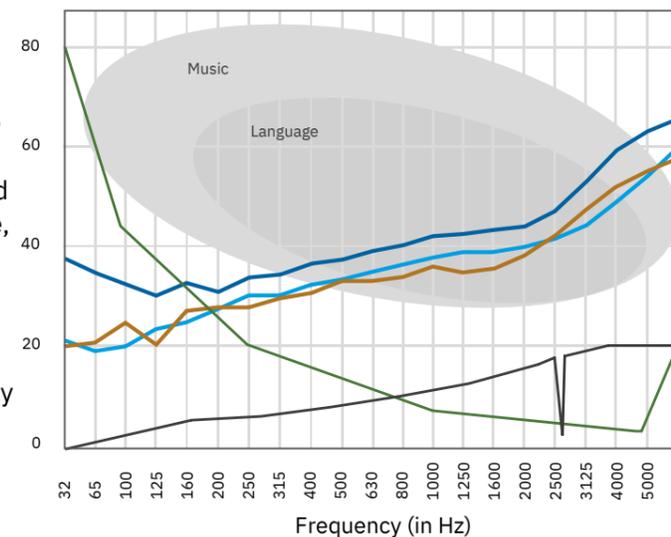


PhoneStar can be doubled up to achieve even better Sound Insulation results.

The results on the graph clearly show the outstanding airborne sound insulating attributes of the PhoneStar boards. They substantially reduce sound in the low frequency range, rising up to 40 - 45 dB in the typical human hearing range. Additionally, the coincidence dip does not affect PhoneStar in the way that it does with homogeneous building materials.

Acoustic insulation measure (in dB)

The pain threshold is at 120 dB



Typical coincidence dip of homogeneous building materials  
Auditory threshold



## Easy installation



### CUTTING

Quick & easy, e.g. with a utility knife or a hand-held circular saw.

### TAPING

Tape cut edges with Wolf Tape.

### INSTALLATION

The PhoneStar boards are laid in a brickwork formation either floating or glued onto floors, depending on the final floor covering.

PhoneStar boards are installed either directly or preferably on to a sub-structure, on walls or ceilings.



**FLOOR FINISHES** Any type of final floor covering can be installed over PhoneStar boards with appropriate preparation.

### WALL AND CEILING SURFACES

Any type of final floor covering can be installed over PhoneStar boards with appropriate preparation.

### DRILLING SOCKET HOLES

Holes can be drilled easily. To prevent a slight trickle, seal with acrylic.

 See current installation instructions on: [www.wolf-bavaria.com/downloadcenter/](http://www.wolf-bavaria.com/downloadcenter/)



PhoneStar boards are installed to timber or metal stud wall using the appropriate drywall screws.

PhoneStar boards are installed to the wall on Wolf TPS 25, Battens or with Wolf wall plug fixings.



## Delivery program and certification

### PhoneStar PREMIUM-Line for best possible improvement

	Product illustration	Weight [kg/m <sup>2</sup> ]	Thickness [mm]	Item number	Length x Width [mm]	Quantity [per pallet]
PhoneStar Plus Tri		29	15	1015	1250 x 625	31.25 m <sup>2</sup> 40 boards

### PhoneStar PROFESSIONAL-Line for increased improvement

	Product illustration	Weight [kg/m <sup>2</sup> ]	Thickness [mm]	Item number	Length x Width [mm]	Quantity [per pallet]
PhoneStar Tri		18	15	1010	1200 x 800	53.76 m <sup>2</sup> 56 boards
				1008	1250 x 625	54.69 m <sup>2</sup> 70 boards
PhoneStar Twin		12	10	1009	1200 x 800	81.60 m <sup>2</sup> 85 boards
				1012	1250 x 625	82.03 m <sup>2</sup> 105 boards

### PhoneStar STANDARD-Line for minimum improvement

	Product illustration	Weight [kg/m <sup>2</sup> ]	Thickness [mm]	Item number	Length x Width [mm]	Quantity [per pallet]
PhoneStar ST Tri		17.5	12.5	1017	1200 x 800	54.72 m <sup>2</sup> 57 boards
				1019	1250 x 625	54.68 m <sup>2</sup> 70 boards
PhoneStar ST Twin		11.5	9	1018	1200 x 800	83.52 m <sup>2</sup> 87 boards

### Floor weight improvement board

	Product illustration	Weight [kg/m <sup>2</sup> ]	Thickness [mm]	Item number	Length x Width [mm]	Quantity [per pallet]
PhoneStar 25		39	25	1011	800 x 600	26.88 m <sup>2</sup> 56 boards



**CE**  
20  
ETA N° 20/0371

### CERTIFICATION

The complete PhoneStar product range is listed in the ETA-20/0371 with all superstructures/constructions for application in the areas of floors, walls, ceilings and sloping roofs.

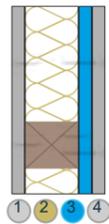
## Lightweight walls with sound and fire protection

### TIMBER STUD WALL

#### ONE SIDE PANELLING WITH PHONESTAR

Airborne sound insulation of up to 53 dB

Fire resistance F 30-B



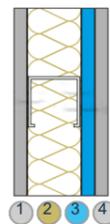
- 1 4 Fire Resistant Plasterboard 12.5 mm acc. to DIN 18180
- 2 Insulation Layer of 40 mm Thickness minimum (30 kg/m<sup>3</sup>)
- 3 PhoneStar ST Tri - 12.5 mm

### METAL STUD WALL

#### ONE SIDE PANELLING WITH PHONESTAR

Airborne sound insulation of up to 61 dB

Fire resistance F 30-AB

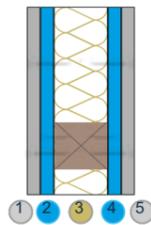


- 1 4 Fire Resistant Plasterboard 12.5 mm acc. to DIN 18180
- 2 Insulation Layer of 40 mm Thickness minimum (30 kg/m<sup>3</sup>)
- 3 PhoneStar ST Tri - 12.5 mm

#### BOTH SIDES PANELLING WITH PHONESTAR

Airborne sound insulation up to 64 dB

Fire resistance F 30-B

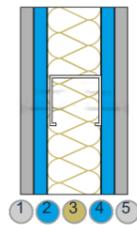


- 1 5 Fire Resistant Plasterboard 12.5 mm acc. to DIN 18180
- 3 Insulation Layer of 40 mm Thickness minimum (30 kg/m<sup>3</sup>)
- 2 4 PhoneStar ST Tri - 12.5 mm

#### BOTH SIDES PANELLING WITH PHONESTAR

Airborne sound insulation up to 65 dB

Fire resistance F 30-AB



- 1 5 Fire Resistant Plasterboard 12.5 mm acc. to DIN 18180
- 3 Insulation Layer of 40 mm Thickness minimum (30 kg/m<sup>3</sup>)
- 2 4 PhoneStar ST Tri - 12.5 mm

FURTHER FIRE PROTECTION CLASSES FireResistantPlasterboardacc.toDIN18180including PhoneStar		
Fire hazard class	Insulating material Minimum thickness / minimum bulk density mm / kg/m <sup>3</sup>	Plasterboard acc. to DIN 18180 on both sides
F 60-B	40/40	each 2 x 12.5 mm or 1 x 25 mm each
F 90-B	80/100	each 2 x 12.5 mm

Fireprotection according to DIN 4102-4: 2016-05 table 10.3 and Expertise IBB No. 6A-2017/113-Mey

FURTHER FIRE PROTECTION CLASSES FireResistantPlasterboardacc.toDIN18180including PhoneStar		
Fire hazard class	Insulating material Minimum thickness / minimum bulk density mm / kg/m <sup>3</sup>	Plasterboard acc. to DIN 18180 on both sides
F 60-AB	40/40	each 2 x 12.5 mm or 1 x 25 mm each
F 90-AB	40/100	each 2 x 12.5 mm
	60/50	
	80/30	

Fire protection according to DIN 4102-4: 2016-05 table 10.2 and Expertise IBB No. 6A-2017/113-Mey

- Retrofit  New build
- Timber frame houses
- Masonry houses

In an Expertise, IBB GmbH from Groß Ipper has confirmed that PhoneStar only results in a slight deviation when used in wall constructions according to DIN 4102-4: 2016-5.

Current fire protection reports are available on request



## Lightweight walls with sound insulation

Tested solutions for soundproof, non-load-bearing Metal Stud Wall

Depiction	Depiction	Total thickness [mm]	Airborne Sound Insulation measure R <sub>w</sub> (C;Ctr) according to ISO 10140-2
<b>56 dB</b> 	- Plaster board* 15 mm - EGGER Ergo Board - OSB 12 mm - Metal Stud w. MiWo* 40 kg/m <sup>3</sup> 100 mm - EGGER Ergo Board - OSB 12 mm - Plaster board* 15 mm	154	56 dB (-3/-8)
<b>61 dB</b> 	- Plaster board* 15 mm - EGGER Ergo Board - OSB 12 mm - Metal Stud w. MiWo* 40 kg/m <sup>3</sup> 100 mm - EGGER Ergo Board - OSB 12 mm - PhoneStar Tri 15 mm - Plaster board* 15 mm	169	61 dB (-2/-6)
<b>65 dB</b> 	- Plaster board* 15 mm - PhoneStar Tri 15 mm - EGGER Ergo Board - OSB 12 mm - Metal Stud w. MiWo* 40 kg/m <sup>3</sup> 100 mm - EGGER Ergo Board - OSB 12 mm - PhoneStar Tri 15 mm - Plaster board* 15 mm	184	65 dB (-2/-7)

\*Plasterboard according to EN 520 - type DF. / Mineral wool (MiWo) according to EN 13162A1, melting temperature 1000 °C / Profiles metal frame: max. distance 625 mm. \*\* Fire protection according to REI 60 according to test certificate P-SAC-02/ III-804Ä



Test report available on request

Test report of MFA Leipzig PB 4.2/16-393-(1-5)

## Single-leaf apartment partitions wall with sound insulation

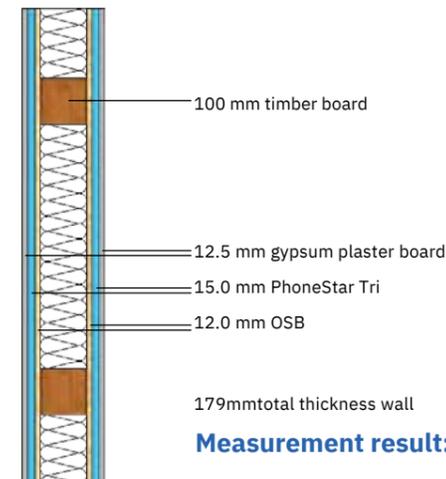
Measurement of an apartment partition in a reference object. The building acoustic measurement of airborne sound shows the increased sound insulation R<sub>w</sub> 56 dB between the wall

(living) and child 2 on the ground floor.



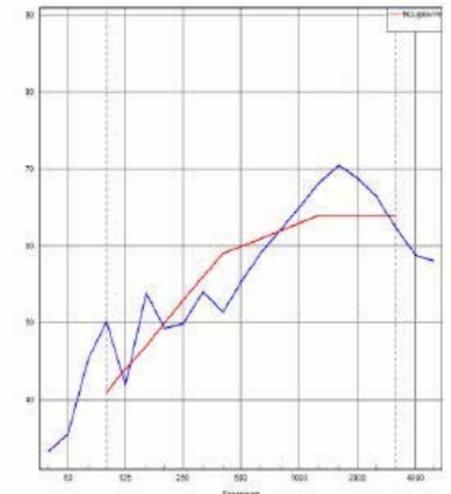
Apartment partition in prefabrication

Wall structure with PhoneStar



Test report airborne sound insulation ISO 16283-1

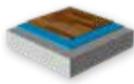
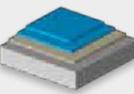
Frequenz [Hz]	R <sub>w</sub> [dB]
50	33.3
63	35.6
80	45.3
100	50.2
125	41.9
160	53.9
200	49.3
250	50.0
315	54.0
400	51.5
500	55.4
630	59.1
800	62.2
1000	65.0
1250	68.1
1600	70.5
2000	68.8
2500	66.5
3150	62.4
4000	58.8
5000	58.0



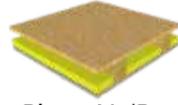
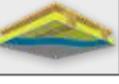
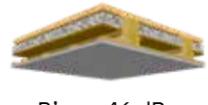
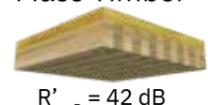
Test report MB 1119

Sound reduction index ISO 717-1 R<sub>w</sub> (C;Ctr) : 60 (-1;-4)dB

## PhoneStar floor systems - Concrete floors

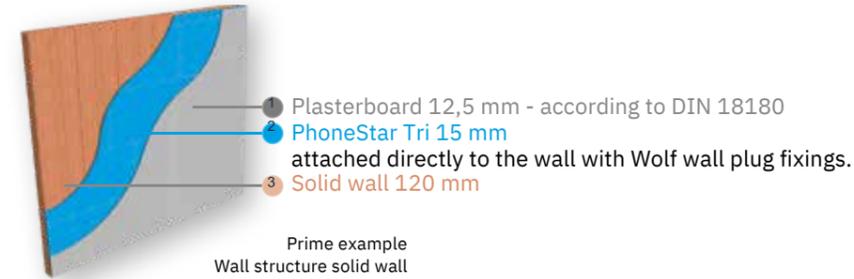
Initial Value Thickness of Floor: 180 mm	System Code	Depiction	Construction Details	PhoneStar (Board thickness)	Overall height total-Construction	Impact sound improvement $\Delta L_w$
<b>CONCRETE SLABS</b>    $R'_{w,R} = 53 \text{ dB}$ $L'_{n,w,R} = 73 \text{ dB}$	BM 1.2		Laminate 8 mm PhoneStar	Tri - 15 mm	23 mm	22 dB
	BM 1.5		No final flooring 2 x PhoneStar 20 mm Wood Fibre (WF) ( $s' = 50 \text{ MN/m}^3$ )	Twin - 10 mm	40 mm	26 dB

## PhoneStar ceiling systems

TIMBER CEILING	System Code	Depiction	Construction Details	Board Thickness	Final Construction Height	Airborne sound improvement $\Delta R_w$	Impact sound improvement $\Delta L_w$
<b>Ceiling Cover in Place</b>    $R'_{w,R} = 46 \text{ dB}$ $L'_{n,w,R} = 75 \text{ dB}$	DHG L 1.3		Battens 48/24	ST Tri 12.5 mm Fire Resistant Plasterboard 12.5 mm	55 mm	12 dB	15 dB
	DHG H 1.3		Wolf TPS 25	ST Tri 12.5 mm Fire Resistant Plasterboard 12.5 mm	52 mm	18 dB	25 dB
<b>Traditional Timber Floor</b>    $R'_{w,R} = 46 \text{ dB}$ $L'_{n,w,R} = 66 \text{ dB}$	DHA L 1.3		Battens 4 8/24	ST Tri 12.5 mm Fire Resistant Plasterboard 12.5 mm	55 mm	12 dB	15 dB
	DHA H 1.3		Wolf TPS 25	ST Tri 12.5 mm Fire Resistant Plasterboard 12.5 mm	52 mm	18 dB	25 dB
<b>Mass Timber</b>    $R'_{w,R} = 42 \text{ dB}$ $L'_{n,w,R} = 76 \text{ dB}$	DHB H 1.3		Battens 60/40 Wolf TPS 25	ST Tri 12.5 mm Plasterboard 12.5 mm	52 mm	11 dB	14 dB

The values given are guide values and may vary depending on the type of overall structure and the individual construction site situation. They serve primarily to compare the individual systems.

## PhoneStar Wall systems



**i** All the tested system structures are recorded and released in ETA-20/0371

	System Code	Construction Details	Construction Details	Board thickness	Depth of Structure (excluding the wall)	Airborne sound Insulation $R_w$	Airborne sound improvement $\Delta R_w$
<b>MASONRY</b>    Initial Value: $R = 42 \text{ dB}$ Thickness: 120 mm	WMZ D 1.2		Directly plugged*	15 mm Tri 12.5 mm GKB	27.5 mm	48 dB	6 dB
	WMZ W 1.2		Wood Fibre Boards 12 mm	15 mm Tri 12.5 mm Plasterboard	39.5 mm	50 dB	8 dB
	WMZ W 1.2.2		Wood Fibre Boards 12 mm	2 x 15 mm Tri 12.5 mm Plasterboard	54.5 mm	54 dB	12 dB
	WMZ L 1.2		Battens decoupled 6 0/4 0	15 mm Tri 12.5 mm Plasterboard	70.5 mm	59 dB	17 dB
	WMZ L 1.2 OSB		Battens decoupled 6 0/4 0	18 mm OSB, 15 mm Tri, 12.5 mm Plasterboard	88.5 mm	59 dB	17 dB
	WMZ V 1.2		Curtain walling CW 50 insulated	15 mm Tri 12.5 mm Plasterboard	87.5 mm	66 dB	24 dB
<b>Mass Timber</b>    Initial Value: $R = 34 \text{ dB}$ Thickness: 100 mm	WMZ L 1.2		Battens 6 0/4 0	15 mm Tri	57.5 mm	50 dB	16 dB
	WMH H 1.2		CD 60/27 Direct vibration hangers	15 mm Tri 12.5 mm Plasterboard	54.5 mm	56 dB	22 dB

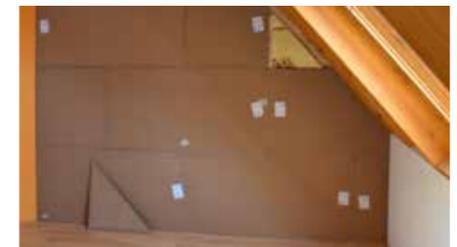
The values given are guide values and may vary depending on the type of overall structure and the individual construction site situation. They are primarily used to compare the individual systems. \* Only for cladding with plasterboard.



Loft conversion  
PhoneStar installation in one layer



Modular construction - PhoneStar installation in multiple glued layers



Wall insulation  
PhoneStar ST

## Closed wooden Beam Floors



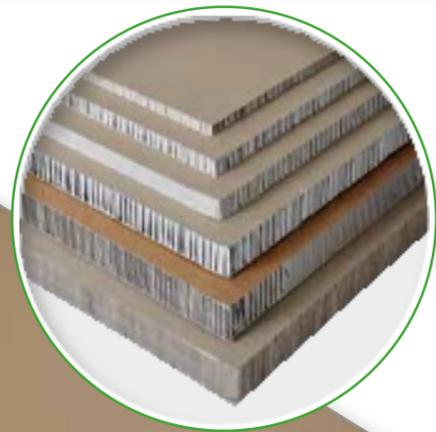
Bare ceiling: Closed wooden beam floors 100/240KVH / 240 mm MF / 22mm OSB 80 mm bound limestone grit filling finish		2x15mmPhoneStar Tri			2 x 10 mm PhoneStar Twin			
		4 mm Protect	20 mm Gutex	40 mm Gutex gf	4 mm Protect	20 mm Steico B	40 mm Gutex gf	
Suspended ceiling								
48/24 Battens	12.5 mm GKF	L <sub>n,w</sub>	<b>59 dB</b>	<b>56 dB</b>	<b>55 dB</b>	59 dB	55 dB	57 dB
		R <sub>w</sub>	<b>63 dB</b>	<b>66 dB</b>	<b>67 dB</b>	63 dB	65 dB	65 dB
	12.5 mm PhoneStar 12.5 mm GKFI	L <sub>n,w</sub>	42 dB	<b>41 dB</b>	41 dB	42 dB	40 dB	42 dB
		R <sub>w</sub>	≥ 70 dB	<b>78 dB</b>	≥ 70 dB	≥ 70 dB	≥ 70 dB	≥ 70 dB
Hanger Wolf TPS 25	12.5 mm GKFI	L <sub>n,w</sub>	36 dB	<b>37 dB</b>	37 dB	37 dB	36 dB	38 dB
		R <sub>w</sub>	≥ 75 dB	<b>81 dB</b>	≥ 75 dB	≥ 75 dB	≥ 75 dB	≥ 75 dB
	12.5 mm PhoneStar 12.5 mm GKFI	L <sub>n,w</sub>	33 dB	31 dB	34 dB	33 dB	<b>32 dB</b>	36 dB
		R <sub>w</sub>	≥ 75 dB	84 dB	≥ 75 dB	≥ 75 dB	<b>84 dB</b>	≥ 75 dB
Bare ceiling: Closed wooden beam floors 100/240 KVH / 240 mm MF / 22 mm OSB 80 mm bound limestone grit filling finish		18 mm Gypsum fiber pre-finished screed / 20 mm PowerFloor Light 2 x 15 mm PhoneStar Tri			18 mm Gypsum fiber pre-finished screed / 20 mm PowerFloor Light 2 x 10 mm PhoneStar Twin			
		4 mm Protect	20 mm Gutex	40 mm Gutex gf	4 mm Protect	20 mm Steico B	40 mm Gutex gf	
Suspended ceiling								
48/24 Battens	12.5 mm GKF	L <sub>n,w</sub>	59 dB	56 dB	55 dB	59 dB	55 dB	57 dB
		R <sub>w</sub>	63 dB	66 dB	67 dB	63 dB	65 dB	65 dB
	12.5 mm PhoneStar 12.5 mm GKFI	L <sub>n,w</sub>	41 dB	40 dB	40 dB	41 dB	40 dB	42 dB
		R <sub>w</sub>	≥ 70 dB	≥ 70 dB	≥ 70 dB	≥ 70 dB	≥ 70 dB	≥ 70 dB
Hanger Wolf TPS 25	12.5 mm GKFI	L <sub>n,w</sub>	36 dB	37 dB	37 dB	37 dB	36 dB	38 dB
		R <sub>w</sub>	≥ 75 dB	≥ 75 dB	≥ 75 dB	≥ 75 dB	≥ 75 dB	≥ 75 dB
	12.5 mm PhoneStar 12.5 mm GKFI	L <sub>n,w</sub>	32 dB	<b>30 dB</b>	33 dB	32 dB	31 dB	35 dB
		R <sub>w</sub>	≥ 75 dB	<b>84 dB</b>	≥ 75 dB	≥ 75 dB	≥ 75 dB	≥ 75 dB
Bare ceiling: Closed wooden beam floors 100/240 KVH / 240 mm MF / 22 mm OSB 80 mm bound limestone grit filling finish		18 mm Gypsum fiber pre-finished screed / 24 mm PowerFloor Eco 2 x 15 mm PhoneStar TRI			18 mm Gypsum fiber pre-finished screed / 20 mm PowerFloor Eco 2 x 10 mm PhoneStar Twin			
		4 mm Protect	20 mm Gutex	40 mm Gutex gf	4 mm Protect	20 mm Steico B	40 mm Gutex gf	
Suspended ceiling								
48/24 Battens	12.5 mm GKF	L <sub>n,w</sub>	59 dB	56 dB	55 dB	59 dB	55 dB	57 dB
		R <sub>w</sub>	63 dB	63 dB	67 dB	63 dB	65 dB	65 dB
	12.5 mm PhoneStar 12.5 mm GKFI	L <sub>n,w</sub>	41 dB	40 dB	40 dB	41 dB	40 dB	42 dB
		R <sub>w</sub>	≥ 70 dB	≥ 70 dB	≥ 70 dB	≥ 70 dB	≥ 70 dB	≥ 70 dB
Hanger Wolf TPS 25	12.5 mm GKFI	L <sub>n,w</sub>	36 dB	37 dB	37 dB	37 dB	36 dB	38 dB
		R <sub>w</sub>	≥ 75 dB	≥ 75 dB	≥ 75 dB	≥ 75 dB	≥ 75 dB	≥ 75 dB
	12.5 mm PhoneStar 12.5 mm GKFI	L <sub>n,w</sub>	32 dB	<b>32 dB</b>	33 dB	32 dB	31 dB	35 dB
		R <sub>w</sub>	≥ 75 dB	<b>83 dB</b>	≥ 75 dB	≥ 75 dB	≥ 75 dB	≥ 75 dB

The values given are guide values and may vary depending on the type of overall structure and the individual construction site situation. They serve primarily to compare the individual systems. The values in bold of the assessed sound insulation indices and standard impact sound level are measured values.

## Mass Timber Floor



Bare ceiling: 140mm solid Timber Floor 80 mm cement-bound grit filling finish		15 mm PhoneStar Tri			10 mm PhoneStar Twin			
		4 mm Protect	Floor 220	Acoustics EP 3	4 mm Protect	Floor 220	Acoustics EP 3	
Suspended ceiling								
Visible ceiling		L <sub>n,w</sub>	52 dB	47 dB	44 dB	54 dB	49 dB	46 dB
		R <sub>w</sub>	57 dB	61 dB	61 dB	52 dB	56 dB	56 dB
60/40 Battens	12.5 mm PhoneStar Tri 12.5 mm GKB	L <sub>n,w</sub>	56 dB	51 dB	48 dB	58 dB	53 dB	50 dB
		R <sub>w</sub>	53 dB	57 dB	57 dB	48 dB	52 dB	52 dB
60/40 Battens / Hanger Wolf TPS 25	12.5 mm PhoneStar Tri 12.5 mm GKB	L <sub>n,w</sub>	38 dB	33 dB	30 dB	40 dB	35 dB	32 dB
		R <sub>w</sub>	68 dB	72 dB	72 dB	63 dB	67 dB	67 dB
Bare ceiling: 140 mm solid Timber Floor 80 mm cement-bound grit filling finish		2 x 15 mm PhoneStar Tri			2 x 10 mm PhoneStar Twin			
		4 mm Protect	Floor 220	Acoustics EP 3	4 mm Protect	Floor 220	Acoustics EP 3	
Suspended ceiling								
Visible ceiling		L <sub>n,w</sub>	<b>49 dB</b>	<b>44 dB</b>	<b>41 dB</b>	51 dB	46 dB	<b>43 dB</b>
		R <sub>w</sub>	<b>64 dB</b>	<b>68 dB</b>	<b>68 dB</b>	59 dB	63 dB	<b>63 dB</b>
60/40 Battens	12.5 mm PhoneStar Tri 12.5 mm GKB	L <sub>n,w</sub>	53 dB	48 dB	<b>45 dB</b>	55 dB	50 dB	47 dB
		R <sub>w</sub>	60 dB	64 dB	<b>64 dB</b>	55 dB	59 dB	59 dB
60/40 Battens / Hanger Wolf TPS 25	12.5 mm PhoneStar Tri 12.5 mm GKB	L <sub>n,w</sub>	35 dB	30 dB	<b>27 dB</b>	37 dB	32 dB	29 dB
		R <sub>w</sub>	75 dB	≥ 75 dB	<b>79 dB</b>	70 dB	74 dB	74 dB
Bare ceiling: 140 mm solid Timber Floor 80 mm cement-bound grit filling finish		18 mm GF pre-finished screed 2 x 15 mm PhoneStar Tri			18 mm GF pre-finished screed 2 x 10 mm PhoneStar Twin			
		4 mm Protect	Floor 220	Acoustics EP 3	4 mm Protect	Floor 220	Acoustics EP 3	
Suspended ceiling								
Visible ceiling		L <sub>n,w</sub>	52 dB	47 dB	<b>44 dB</b>	54 dB	49 dB	46 dB
		R <sub>w</sub>	62 dB	66 dB	<b>66 dB</b>	57 dB	61 dB	61 dB
60/40 Battens	12.5 mm PhoneStar Tri 12.5 mm GKB	L <sub>n,w</sub>	56 dB	51 dB	48 dB	58 dB	53 dB	50 dB
		R <sub>w</sub>	58 dB	62 dB	62 dB	53 dB	57 dB	57 dB
60/40 Battens / Hanger Wolf TPS 25	12.5 mm PhoneStar Tri 12.5 mm GKB	L <sub>n,w</sub>	35 dB	30 dB	27 dB	37 dB	32 dB	29 dB
		R <sub>w</sub>	75 dB	≥ 75 dB	79 dB	70 dB	74 dB	74 dB
Bare ceiling: 140 mm solid Timber Floor 80 mm cement-bound grit filling finish		50 mm cement screed 2 x 15 mm PhoneStar Tri			50 mm cement screed 2 x 10 mm PhoneStar Twin			
		4 mm Protect	Floor 220	Acoustics EP 3	4 mm Protect	Floor 220	Acoustics EP 3	
Suspended ceiling								
Visible ceiling		L <sub>n,w</sub>	53 dB	48 dB	<b>45 dB</b>	55 dB	50 dB	47 dB
		R <sub>w</sub>	66 dB	70 dB	<b>70 dB</b>	61 dB	65 dB	65 dB
60/40 Battens	12.5 mm PhoneStar Tri 12.5 mm GKB	L <sub>n,w</sub>	57 dB	52 dB	49 dB	59 dB	54 dB	51 dB
		R <sub>w</sub>	62 dB	66 dB	66 dB	57 dB	61 dB	61 dB
60/40 Battens / Hanger Wolf TPS 25	12.5 mm PhoneStar Tri 12.5 mm GKB	L <sub>n,w</sub>	39 dB	34 dB	31 dB	41 dB	36 dB	33 dB
		R <sub>w</sub>	≥ 75 dB	≥ 75 dB	≥ 75 dB	72 dB	≥ 75 dB	≥ 75 dB
Bare ceiling: 140 mm solid Timber Floor 80 mm cement-bound grit filling finish		18 mm GF pre-finished screed / PowerFloor Light 2 x 15 mm PhoneStar Tri			18 mm GF pre-finished screed / PowerFloor Light / 2 x 10 mm PhoneStar Twin			
		4 mm Protect	Floor 220	Acoustics EP 3	4 mm Protect	Floor 220	Acoustics EP 3	
Suspended ceiling								
Visible ceiling		L <sub>n,w</sub>	51 dB	46 dB	<b>43 dB</b>	53 dB	48 dB	45 dB
		R <sub>w</sub>	62 dB	66 dB	<b>66 dB</b>	57 dB	61 dB	61 dB
60/40 Battens	12.5 mm PhoneStar Tri 12.5 mm GKB	L <sub>n,w</sub>	55 dB	50 dB	47 dB	57 dB	52 dB	49 dB
		R <sub>w</sub>	58 dB	62 dB	62 dB	53 dB	57 dB	≥ 57 dB
60/40 Battens / Hanger Wolf TPS 25	12.5 mm PhoneStar Tri 12.5 mm GKB	L <sub>n,w</sub>	36 dB	31 dB	28 dB	38 dB	33 dB	30 dB
		R <sub>w</sub>	73 dB	≥ 75 dB	≥ 75 dB	68 dB	72 dB	72 dB



## Wolf Cell - Pressure-resistant height compensation

Wolf Cell is ecological and pressure-resistant height compensation for floor constructions.

Petroleum-based materials are mostly used to compensate for

the height of pipes and ventilation ducts. It is often not possible to use balancing and filling materials such as grit or other fillings. Ecological materials in the form of mineral or rock wool are available, as well as wood fiber insulation materials, but processing is complex and less pressure-resistant.

Compressive strength Problem

Common materials for height compensation usually have a compressive strength of less than 100 kPa at 10% compression, as these are usually insulation materials.

Wolf Cell has a compressive strength of over 5 KN/m<sup>2</sup> \* aus.

That is why, when using Wolf Cell, there are fewer movements in the floor due to point and surface loads.

Among other things, This enables the simple laying of large-format tiles without complex measures during execution. A big advantage with dry screeds.

If different insulation materials are combined in the structure, they can have a negative impact on the impact sound insulation. Wolf Cell is largely neutral here.

### Wolf Cell Technical Data

Board dimensions	1200 x 800 mm				
Available thicknesses in mm	30	40	60	70	80
Weight VE in kg/m <sup>2</sup>	1.40	1.72	2.23	3.69	3.77
Item number	6002	6003	6004	6005	6006
Suitable for point loads	up to 4 kN*				
Compressive strength	5 KN/m <sup>2</sup> *				
Fire-resistant material category	B2 according to DIN 4102/E according to EN 13501				

\* In conjunction with Wolf HUGO N+F.

## Easy processing

### CUTTING

Wolf Cell can be processed easily and quickly with a cutter knife.

### DISPOSAL

Remains of the Wolf Cell can be safely disposed of as waste paper.



Easy to process  
pressure-resistant  
recyclable



### INSTALLATION

Wolf Cell is suitable for structures with wet and dry screed. The board must be protected against rising moisture.



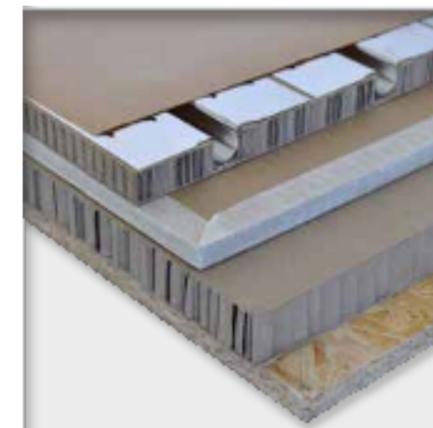
More information:  
[www.wolf-bavaria.com](http://www.wolf-bavaria.com)

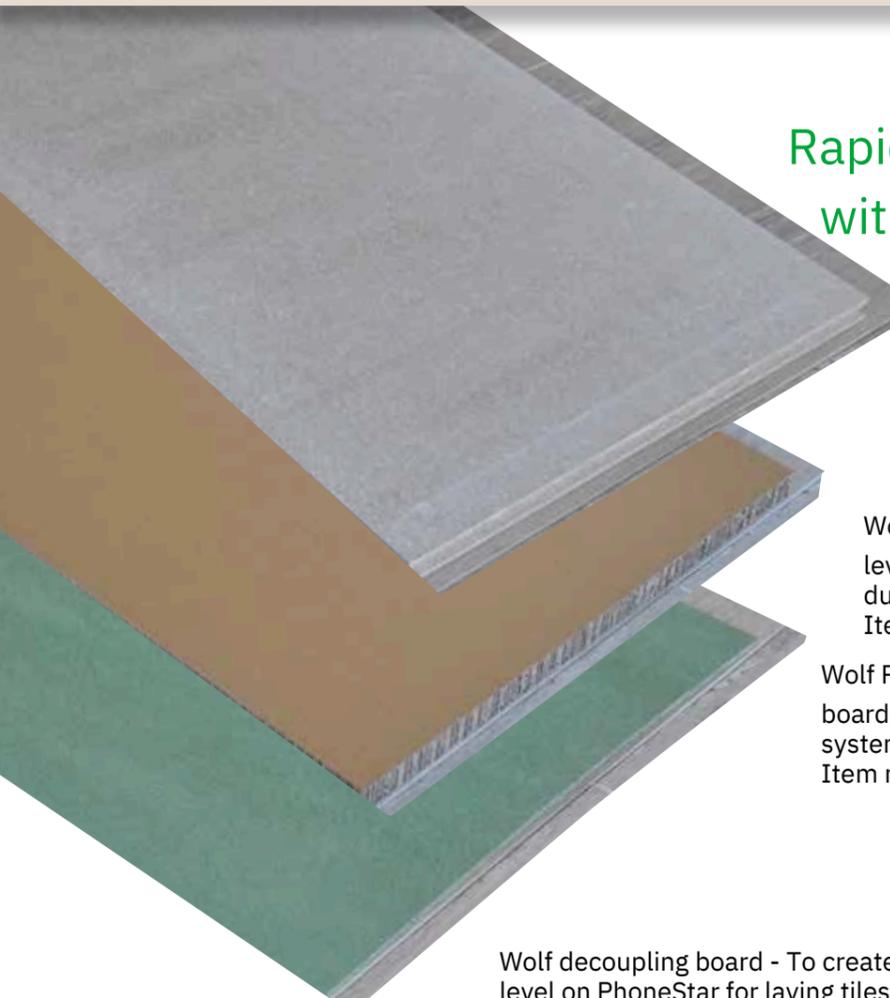
## Advantages of Wolf Cell

- + Very high resistance to compression
- + Easy to process
- + Ecological material
- + Easy disposal as waste paper
- + Suitable for large tile formats
- + Complements the Wolf Floor system



Wolf Cell can be laid in multiple layers.





## Rapidly to the destination - with the right accessories

Wolf Hugo N & F - Gypsum fiber dry screed with tongue and groove connection. Simple laying with Wolf Hugo glue - without screw connections.  
Item no. 3082

Wolf Cell - the pressure-resistant board for leveling the installation (pipe and ventilation ducts).  
Item no. see page 28

Wolf Protect - Soft wood fiber decoupling board for use as a base for Wolf floor systems.  
Item no. 3081

Wolf decoupling board - To create a decoupling level on PhoneStar for laying tiles and natural stone, as well as an alternative decoupling level for parquet.  
Item no. 3091



- dry
- time-saving
- effective

## Time-saving and clean when processing



Item no. 1100

Item no. 1120



Item no. 1110



Wolf Roller adhesive - for glueing PhoneStar boards and PowerFloor underfloor heating.  
Item no. 4085



Wolf parquet adhesive - for glueing PhoneStar onto solid substrates and parquets.  
Item no. 4080

Wolf joint filler - Joint sealing in wall, floor and ceiling connections.  
Item no. 4095



Wolf system glue - for glueing PhoneStar and PowerFloor panels onto board, chipboard or OSB substrates.  
Item no. 4070



Wolf Hugo glue - for glueing HUGO boards to each other.  
Item no. 4075



### Attachment material

Wolf TPS 25 - System vibration hangers, consisting of: Profile, spring clip with screws and connector.  
Item no. 4400 / 4402 / 4403

Wolf system dowel - for the direct mounting of PhoneStar on a solid wall  
Item no. 4200 / 4201 / 4207 / 4205



Drywall screw for plasterboard on PhoneStar - with an existing substructure  
Item no. 4202/4208



Drywall screw fine thread - for PhoneStar on metal structures  
Item no. 4251



Drywall screw coarse thread - for PhoneStar on wooden structures  
Item no. 4253