

# INSULATION PADS

## THE PROVEN ECONOMIC SOLUTION FOR VIBRATION INSULATION IN MANY INDUSTRY SECTORS



You can also find all information on our insulation pads on our website.

Manufactured from a precisely defined combination of nitrile rubber and cork particles, embedded in a composite of cotton fibres, the physical and mechanical properties of this high-quality composite material satisfy all of the current requirements for various industrial applications, depending on the type of pad.

Very good insulation properties ensure optimum spring deflection and level consistency under both static and dynamic loads.

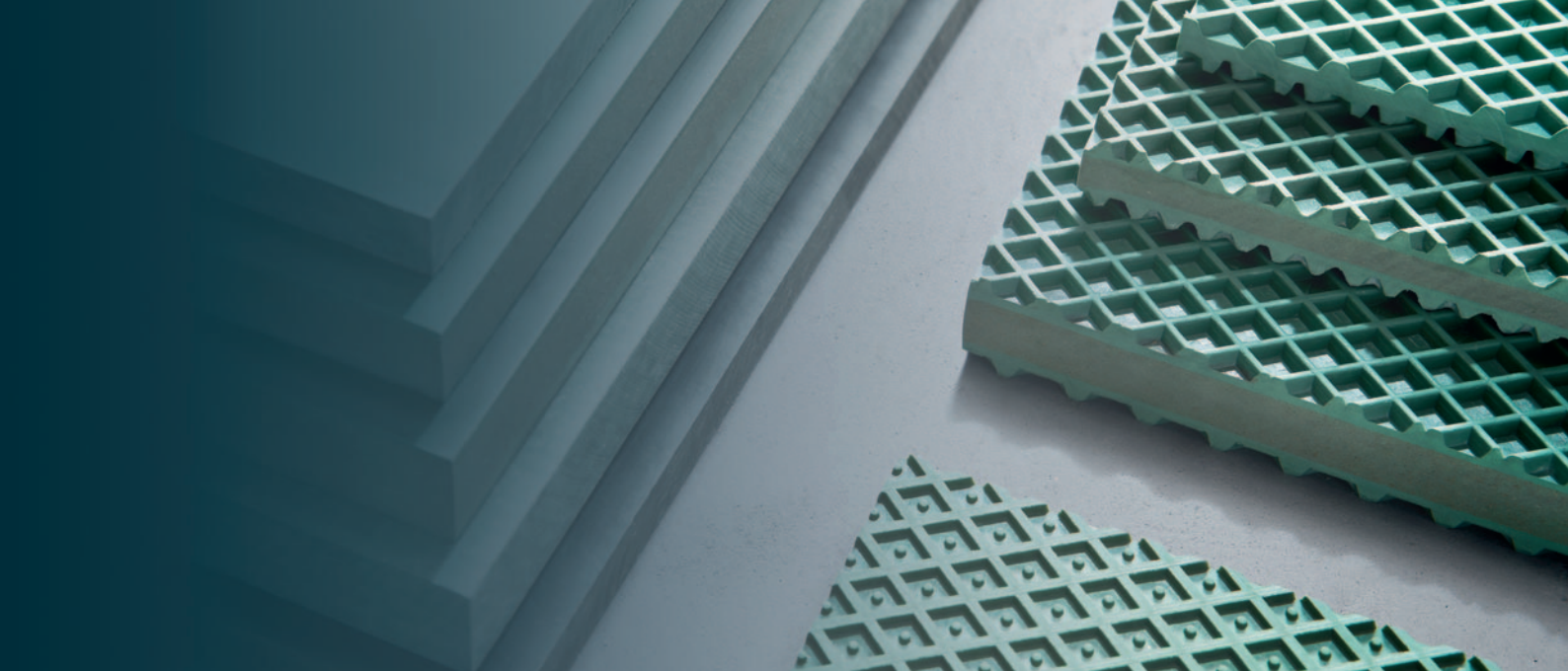
### CHARACTERISTICS AND FACTS

- Effective structure-borne noise insulation
- Ageing resistance: Virtually unlimited service life with adherence to load values. High degree of levelling constancy.
- Temperature resistance: -20° C to +80° C
- Chemical resistance: Excellent resistance to most commercially available coolants and lubricants, fuels and cleaning agents
- Vibration insulation properties: Very high degree

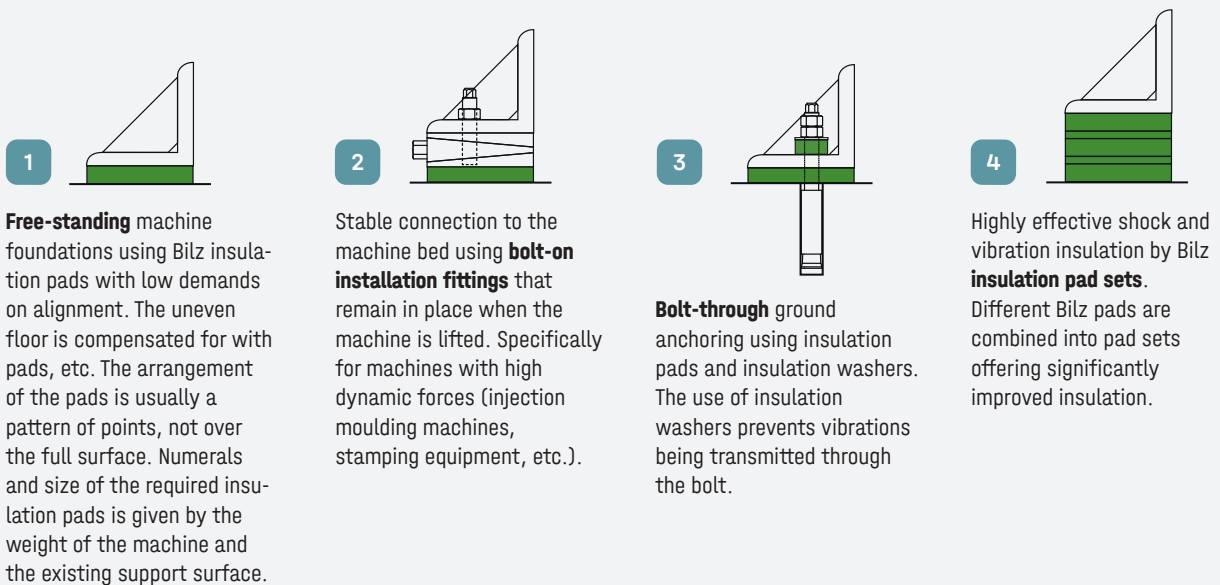
### NOTES

- Bilz insulation pads, anti-slip and spacer pads can be cut to size with any circular or band saw.
- We are happy to supply special sizes on request.
- The specified maximum load is composed of the static and dynamic load of the machine.
- The optimum insulation effect is achieved at approx. 80-90 % of the specified maximum load.
- Selected insulation pads can also be supplied with a profile on one side (description e.g. B4-1).
- The specified coefficient of friction refers to standard industrial screed.
- Cutting tolerance is according to DIN 7715/T5, class P3.
- **W:** Waffle structure designs for compensation of uneven floors (B32W, B30W, B13W)

The insulation pad type B13W is also available as a pad set, e.g. for insulating foundations, see also page 13.



## FOUR POSSIBLE OPTIONS FOR THE USE OF INSULATION PADS FOR MACHINE INSTALLATION

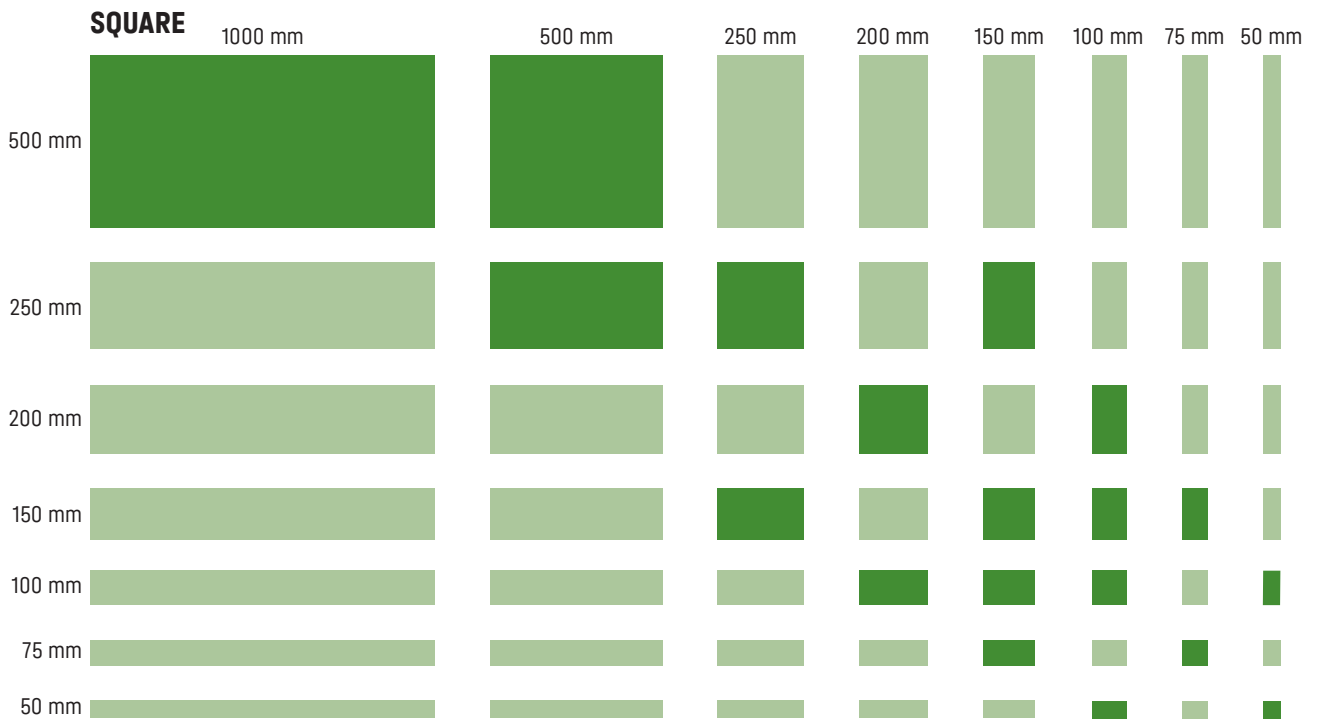


Schematic representation of the application of insulation pads and pad sets

## BILZ INSULATION PADS ARE RESISTANT TO MOST COMMERCIALY AVAILABLE SUBSTANCES

- Lubricants:  
Greases for rolling and plain bearings, gear greases
- Synthetic lubricants:  
Polyalkylene glycols, carboxylic acid esters, radiator antifreeze
- Cleaning agents:  
Chlorinated hydrocarbons, petroleum ether, cold cleaners
- Cleaning agents (aqueous solutions):  
Detergents and rinsing agents, wetting agents, diluted acids, diluted alkalis, salt solutions
- Fuels and combustibles:  
Petrol, diesel fuel, heating oil, aviation fuel, special fuels
- Flame retardant liquids:  
Oil-in-water emulsions, water-in-oil emulsions, aqueous polymer solutions
- Mineral oils:  
Common water-miscible cooling lubricants, ATF (Automatic Transmission Fluid), cooling lubricants, water-miscible corrosion protection oils, slideway oils, compressed air oils, lubricating oils, heat transfer oils, filter oils, rolling oils, automotive gear oils, mineral oil-based brake fluids

### ARTICLE NUMBERS AND STANDARD SIZES



- Available square standard formats
- Special and intermediate formats are manufactured individually on request

SQUARE	B6	B0	B4	B50	B5	B32	B32W	B30	B30W	B13W	BS1	BS	BN	BR7	B8
mm															
1000 × 500	01-0323	01-0005	01-0202	01-0291	01-0260	01-0139	01-0175	01-0057	01-0087	01-0038	01-0462	01-0441	01-0371	01-0391	01-0350
500 × 500	01-0342	01-0027	01-0223	01-0310	01-0280	01-0158	01-0194	01-0079	01-0106	01-0051	01-0473	01-0458	01-0384	01-0406	01-0365
500 × 250	01-0341	01-0026	01-0222	01-0309	01-0279	01-0157	01-0193	01-0078	01-0105	01-0050	01-0472	01-0457	01-0383	01-0405	01-0364
250 × 250	01-0337	01-0020	01-0217	01-0305	01-0274	01-0153	01-0189	01-0072	01-0101	01-0048	01-0470	01-0453	01-0380	01-0402	01-0361
250 × 150	01-0336	01-0019	01-0216	01-0304	01-0273	01-0152	01-0188	01-0071	01-0100	01-0047	01-0469	01-0452	01-0379	01-0401	01-0360
200 × 200	01-0334	01-0016	01-0214	01-0302	01-0271	01-0150	01-0186	01-0069	01-0098	01-0046	01-0468	01-0450	01-0378	01-0400	01-0359
200 × 100	01-0333	01-0015	01-0213	01-0301	01-0270	01-0149	01-0185	01-0068	01-0097	01-0045	01-0467	01-0449	01-0377	01-0399	01-0358
150 × 150	01-0330	01-0012	01-0210	01-0298	01-0267	01-0146	01-0182	01-0065	01-0094	01-0043	01-0465	01-0446	01-0375	01-0397	01-0356
150 × 100	01-0329	01-0011	01-0209	01-0297	01-0266	01-0145	01-0181	01-0064	01-0093	01-0042	01-0464	01-0445	01-0374	01-0396	01-0355
150 × 75	01-0331	01-0013	01-0211	01-0299	01-0268	01-0147	01-0183	01-0066	01-0095	01-0044	01-0466	01-0447	01-0376	01-0398	01-0357
100 × 100	01-0324	01-0006	01-0204	01-0292	01-0261	01-0140	01-0176	01-0058	01-0088	01-0039	01-0463	01-0442	01-0372	01-0392	01-0351
100 × 50	01-0325	01-0007	01-0205	01-0293	01-0262	01-0141	01-0177	01-0060	01-0089	01-0040	-	-	01-0373	01-0393	01-0352
75 × 75	01-0346	01-0034	01-0228	01-0313	01-0284	01-0162	01-0198	01-0083	01-0110	01-0053	-	-	01-0388	01-0409	01-0369
50 × 50	01-0343	01-0029	01-0224	01-0311	01-0281	01-0159	01-0195	01-0080	01-0107	01-0052	-	-	01-0385	01-0407	01-0366

## ROUND



Ø / 300 mm



Ø 238 mm



Ø 200 mm



Ø 150 mm



Ø 110 mm



Ø 75 mm



Ø 50 mm

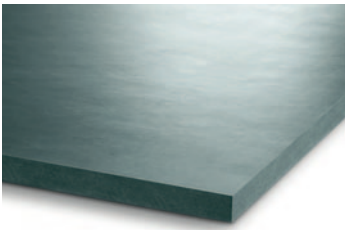
● Available round standard formats

ROUND	B6	B0	B4	B50	B5	B32	B32W	B30	B30W	B13W	BS1	BS	BN	BR7	B8
Ø mm															
50	01-0339	01-0024	01-0220	01-0307	01-0277	01-0155	01-0191	01-0076	01-0103						
75	01-0345	01-0033	01-0227	01-0312	01-0283	01-0161	01-0197	01-0082	01-0109						
110	01-0326	01-0008	01-0206	01-0294	01-0263	01-0142	01-0178	01-0061	01-0090						
150	01-0328	01-0010	01-0208	01-0296	01-0265	01-0144	01-0180	01-0063	01-0092	These pad types are available on request.					
200	01-0332	01-0014	01-0212	01-0300	01-0269	01-0148	01-0184	01-0067	01-0096						
238	01-0335	01-0018	01-0215	01-0303	01-0272	01-0151	01-0187	01-0070	01-0099						
300	01-0338	01-0021	01-0218	01-0306	01-0275	01-0154	01-0190	01-0073	01-0102						

## SELECTION OF SUITABLE PAD TYPE

USE	B6	B0	B4	B50/B5	B32/B32W	B30/B30W	B13W
<b>Metal processing</b>							
Processing centre	●	●					
Drilling machine			●				
Boring mills	●						
Lathe		●					
Lathe, long bed	●						
Milling machine		●	●				
Press					●	●	
Saw			●				
Impact shears					●	●	
Grinding machine	●	●					
Punching machine/nibbler					●	●	●
Transfer line	●						
<b>Plastic processing</b>							
Granulating machine		●	●				
Milling and hammering machine					●	●	
Injection moulding machine			●	●			●
<b>Printing and paper industry</b>							
Bookbinding/printing machine, folder			●				
Scissors, packaging line			●		●		
<b>Measuring and checks</b>							
Measuring machines, scales, microscopes							●
<b>Pad set</b>							
Foundation							●

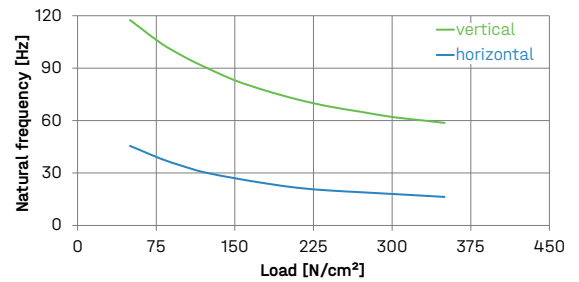
### PAD TYPE B6



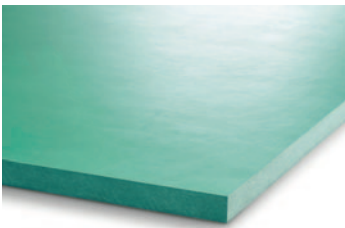
Extremely heavy-duty insulation pad with the highest level of constancy. For very heavy and long-bed machines.

Type	Loads N/cm <sup>2</sup>	Thickness mm	Friction- coeff.
B6	50-350	15	0,6

### DYNAMIC NATURAL FREQUENCY



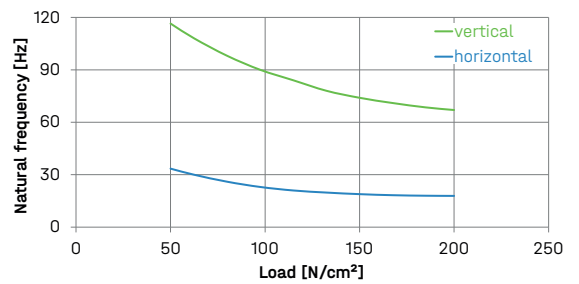
### PAD TYPE B0



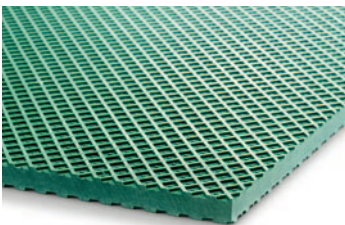
Insulation pad with high level consistency, specifically for machines with low intrinsic rigidity such as processing centres, lathes and grinding machines, etc.

Type	Loads N/cm <sup>2</sup>	Thickness mm	Friction- coeff.
B0	50-200	15	0,6

### DYNAMIC NATURAL FREQUENCY



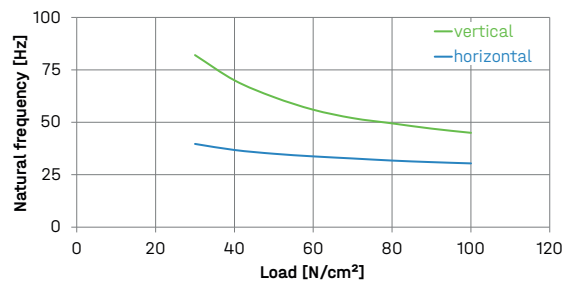
### PAD TYPE B4



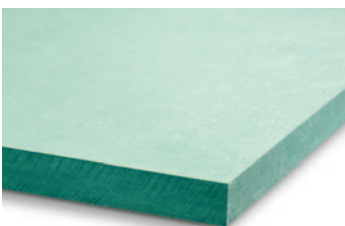
Universally applicable insulation pad for machine tools, plastic and printing machines. Very well suited for machines that tend to "wander". Also available profiled on one side (B4-1).

Type	Loads N/cm <sup>2</sup>	Thickness mm	Friction- coeff.
B4	30-100	15	0,8

### DYNAMIC NATURAL FREQUENCY



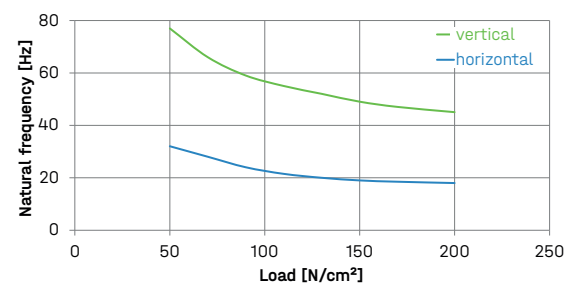
### PAD TYPE B50



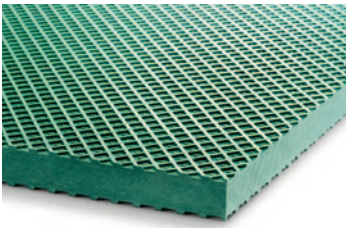
Insulation pad for machines having high machine dynamics and only a small contact surface, e.g. presses, punches, shears etc.

Type	Loads N/cm <sup>2</sup>	Thickness mm	Friction- coeff.
B50	50-200	25	0,8

### DYNAMIC NATURAL FREQUENCY



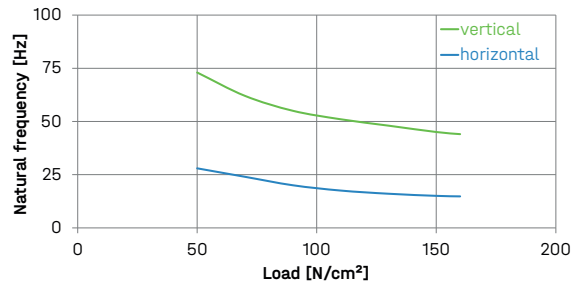
### PAD TYPE B5



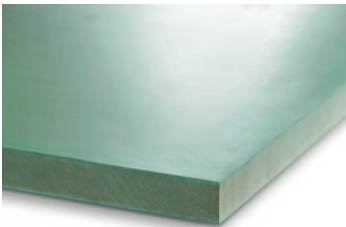
Profiled insulation pad to compensate for uneven floors. Designed specifically for machines with only a small contact surface and high dynamics, e.g. presses, punches, shears etc.

Type	Loads N/cm <sup>2</sup>	Thickness mm	Friction- coeff.
B5	50-160	25	0,8

### DYNAMIC NATURAL FREQUENCY



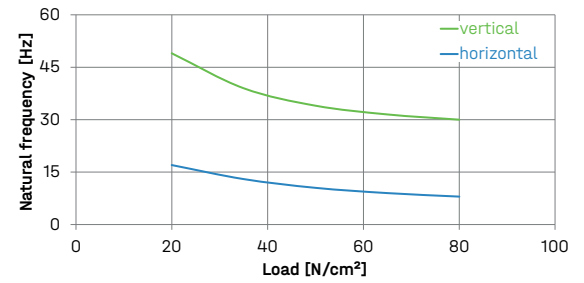
### PAD TYPE B32



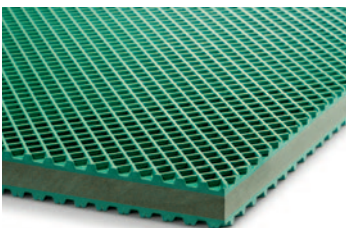
Soft insulation pad without profile with excellent insulation effect, designed specifically for machines with low dynamics such as medium presses, punches etc.

Type	Loads N/cm <sup>2</sup>	Thickness mm	Friction- coeff.
B32	20-80	25	0,8

### DYNAMIC NATURAL FREQUENCY



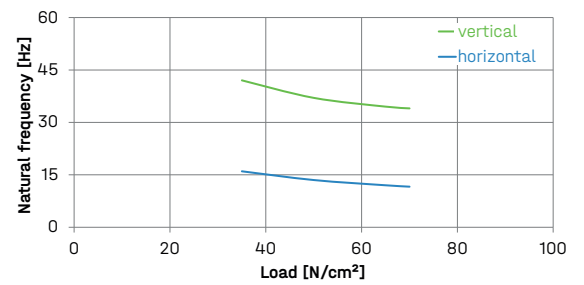
### PAD TYPE B32 W



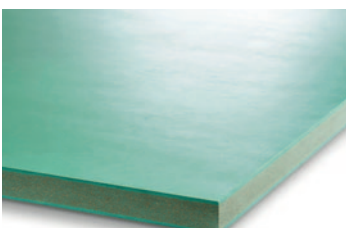
Very soft insulation pad with profile and very high insulation effect. Suitable for machines with low dynamics.

Type	Loads N/cm <sup>2</sup>	Thickness mm	Friction- coeff.
B32W	35-70	25	0,8

### DYNAMIC NATURAL FREQUENCY



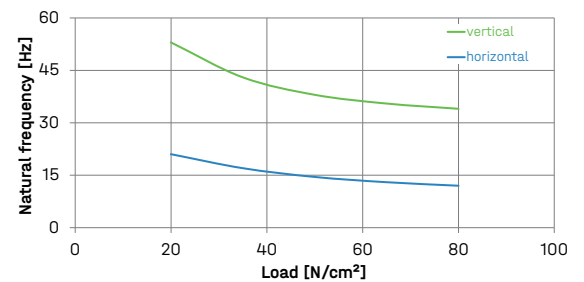
### PAD TYPE B30



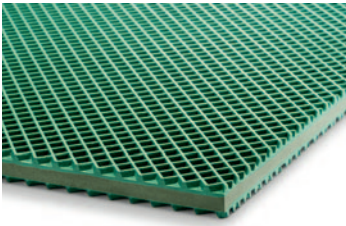
Soft insulation pad without profile, designed specifically for effective insulation when installed on upper floors.

Type	Loads N/cm <sup>2</sup>	Thickness mm	Friction- coeff.
B30	20-80	18	0,8

### DYNAMIC NATURAL FREQUENCY



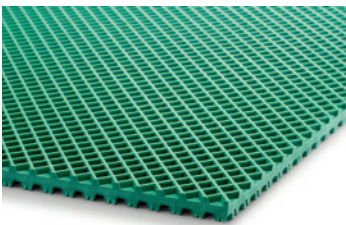
### PAD TYPE B30W



Very soft, profiled insulation pad for static applications with optimum insulating effect due to low-frequency absorption, e.g. for measuring and testing machines, scales, microscopes. B30W also available profiled on one side: B30W-1

Type	Loads N/cm <sup>2</sup>	Thickness mm	Friction- coeff.
B30W	5-40	18	0,8

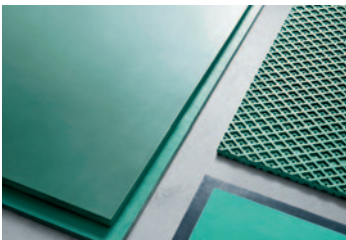
### PAD TYPE B13W



Profiled insulation pad for highest insulation values, can be layered up to 6 times, tuning up to approx. 25 Hz (up to approx. 8 Hz if insulation pad set), best as pad set for foundation insulation.

Type	Loads N/cm <sup>2</sup>	Thickness mm	Friction- coeff.
B13W	5-40	13	0,8

### ANTI-SLIP PADS

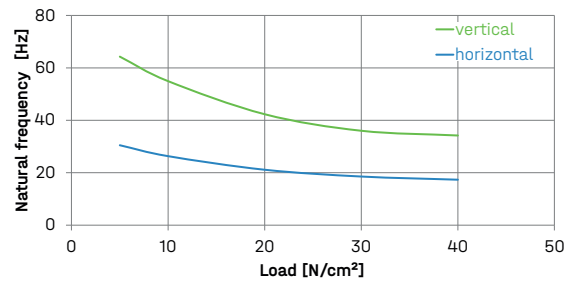


Bilz anti-slip and distance pads, for mechanical levelling and anti-slip. Not used for vibration insulation.

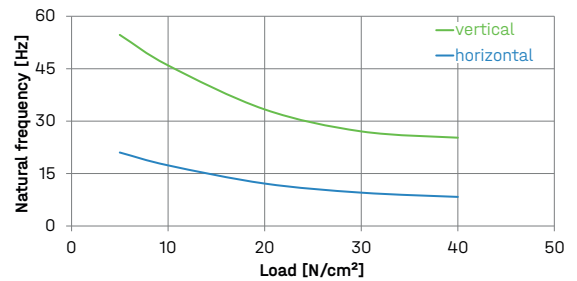
**BR7** also available profiled on one side: BR7-1

Type	Loads N/cm <sup>2</sup>	Thickness mm	Friction- coeff.
<b>BS1</b>	10-400	1	0,9
<b>BS</b>	10-400	2	0,9
<b>BN</b>	10-300	5	0,6
<b>BR7</b>	10-160	7	0,8
<b>B8</b>	5-40	8	0,8

### DYNAMIC NATURAL FREQUENCY



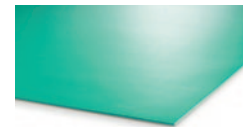
### DYNAMIC NATURAL FREQUENCY



### PAD TYPE BS1



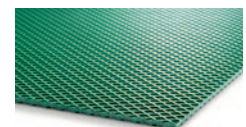
### PAD TYPE BS



### PAD TYPE BN



### PAD TYPE BR7



### PAD TYPE B8



## PAD SETS

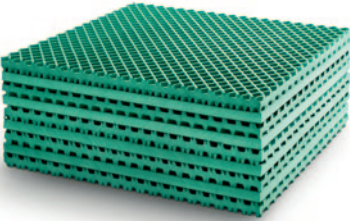
By multiple layering of 2-6 Bilz insulation pads to form pad sets, reduced natural frequencies can be achieved and thus the insulating effect can be significantly increased compared to single-layer insulation pads.

These pad sets are ideal for **large machines and swing foundations**. Even after years of dynamic stress, the vibration-damping and insulation properties of the insulation pad sets remain unchanged.

## STANDARD SIZES

**Standard** Item no. 01-0476  
**Special sizes** Item no. 01-0475

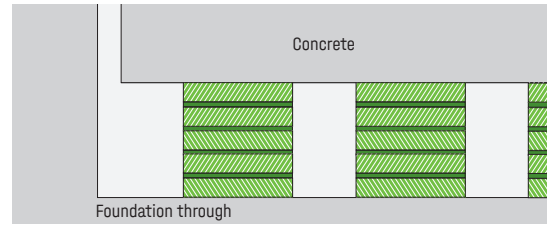
Please specify the desired size when ordering.



The permissible weight load of a pad set is between 5 and 40N/cm<sup>2</sup> depending on the application.

The number and dimensions of the insulation layers as well as the required distribution of the pad sets is determined by Bilz specifically for the application.

We are happy to supply special sizes on request.

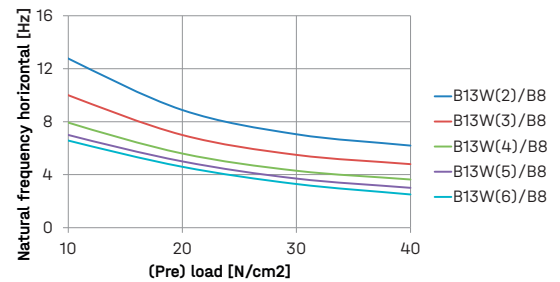
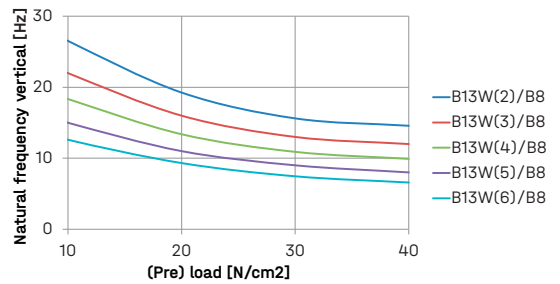


Format: Pad sets under a foundation (concrete block)

## SQUARE

	Length mm				
	500	250	200	166	150
Width mm					
500	●	●			
250	●	●	●	●	
200		●	●	●	
166		●	●	●	
150					●

## NATURAL FREQUENCY



Type	Thickness unloaded mm	Natural vertical frequency Hz	Natural horizontal frequency Hz
B13W/B8, 2x	34	14,5 - 26,5	5,5 - 12,5
B13W/B8, 3x	55	12,0 - 22,0	4,5 - 10,0
B13W/B8, 4x	76	10,0 - 18,5	3,5 - 8,0
B13W/B8, 5x	97	8,0 - 15,0	3,0 - 7,0
B13W/B8, 6x	118	6,5 - 12,5	2,5 - 6,5