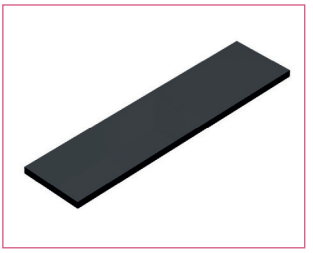
Elastomer bearings and sliding foils

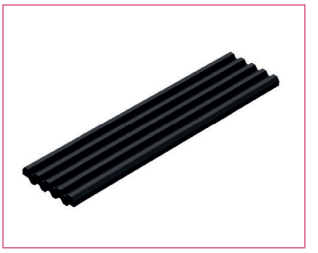
It is used for stresses balance, ensuring free rotation of concrete elements on bracket and decreasing horizontal forces caused by concrete shrinkage, temperature influence or structure deformation. Our offer includes point bearings, line bearings, reinforced bearings or non reinfroced bearings.

National Technical Approval ITB no. AT-15-7634/2016

Types of elastomer bearings

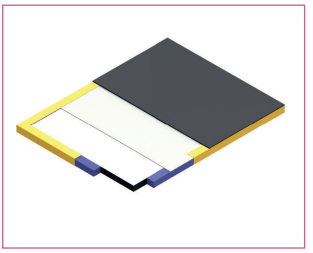


Non reinforced bearings N15, N20



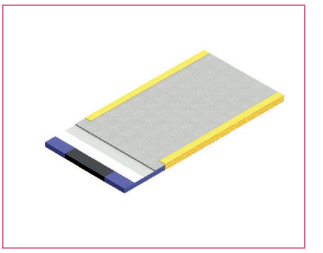
Sound dumpening bearings SD

Reinforced bearings B(1)



Non reinforced bearing NEG

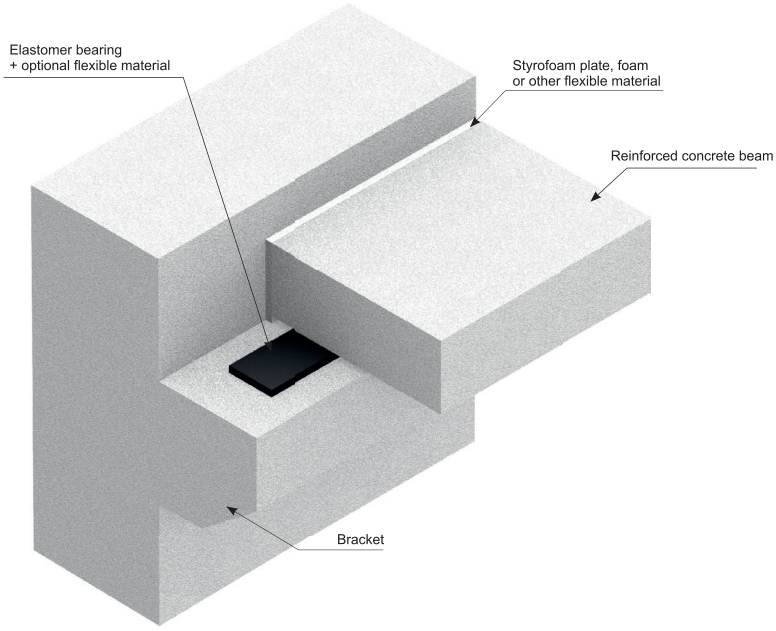
Reinforced bearings B1EG, B1EG-25/30

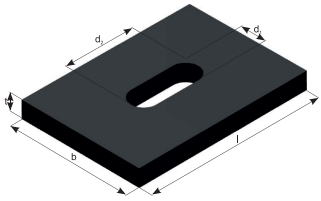


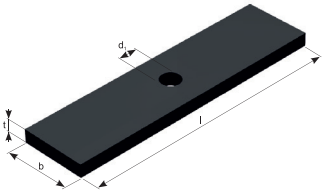
Non reinforced bearings TDG 27 SZ

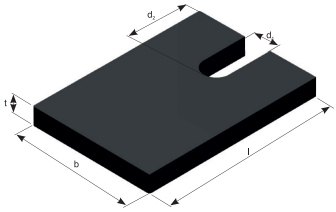
Elastomer bearings (type N15, N20, N3, R5, NEG, B1EG and B1EG/25-30) are produced in square, recangular and round shape plates with holes (round, oval, open) or without holes. Maximum dimensions of N15, N20 bearings are 1000 x 1400mm with possibillity to cut.
TD 21 S and TDG 27 SZ bearings are produced in rectangular plate shapes.
SD bearings are produced in profiled stripes.

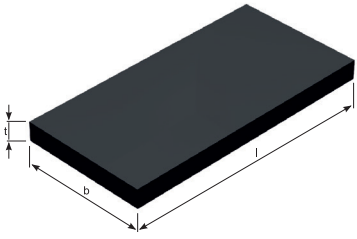
Non reinforced elastomer bearings type N15, N20, N3 and R5











Dimensions marking:

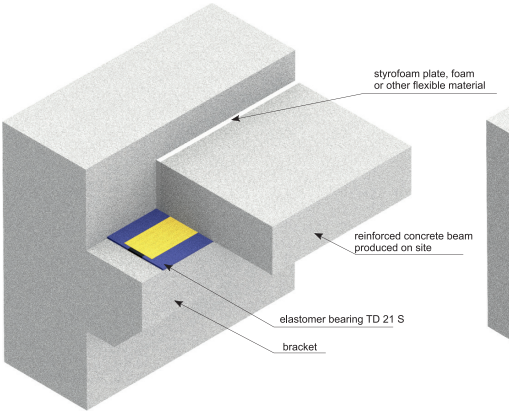
t – bearing thickness [mm]
b – bearing width [mm]
l – bearing length [mm]
d - hole diameter [mm]
D - bearing diameter [mm]
d - hole length [mm]

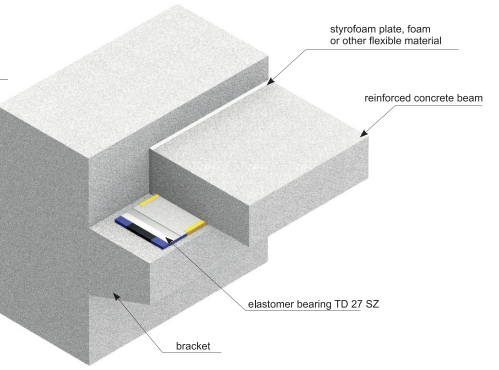
Order specification

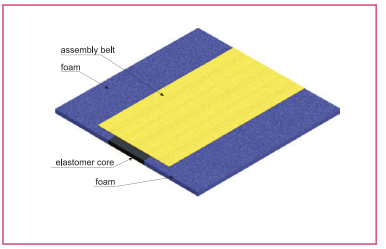
t x b x l [mm]

t – bearing thickness [mm]
b – bearing width [mm]
l – bearing length [mm]

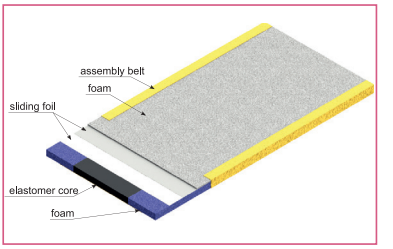
Non reinforced elastomer bearings with elastomer core type TD 21 S and TDG 27 SZ





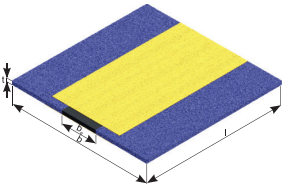


Type TD 21 S

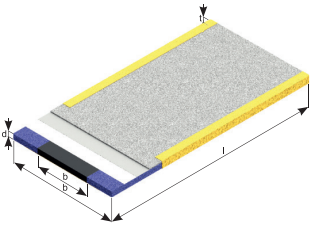


Type TDG 27 SZ

Order specification:



t x b_E / b [mm]



d x b_E / b [mm]

Dimensions marking:

t – bearing thickness [mm]
b_E – elastomer core width [mm]
b – bearing width [mm]
l – bearing length [mm]
d - elastomer core thickness [mm]

Dimensions of non reinforced elastomer bearing type **TD 21 S** - linear						
Bearing thickness t [mm]	Elastomer core width b_E [mm]	Bearing width b [mm]	Rotation angle [‰]	Average tension [N/mm²]	Permited load F [kN/m]	Horizontal movement [mm]
5	25	115 150 175 200 240 300 365	40	8	200	± 2,1
5	50	115 150 175 200 240 300 365	20	15	750	± 2,1
10	50	115 150 175 200 240 300 365	40	8	400	± 5,6

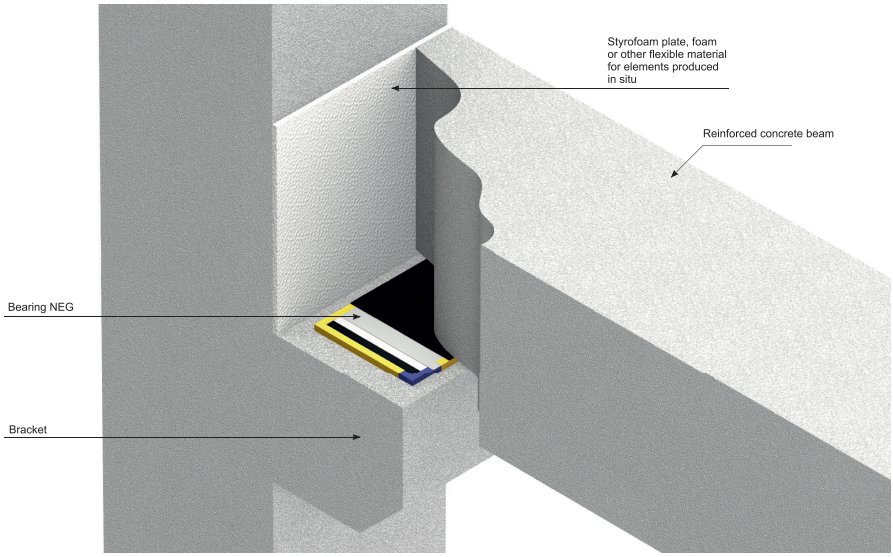
Standard length of elastomer bearing is 1 m

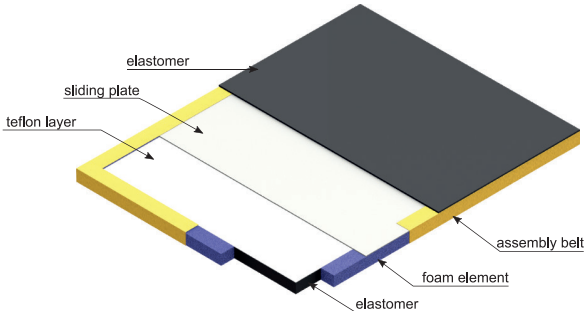
Dimensions of non reinforced sliding elastomer bearing type **TDG 27 SZ** - linear						
Elastomer core thickness d [mm]	Elastomer core width b_E [mm]	Bearing width b [mm]	Bearing thickness t [mm]	Rotation angle [‰]	Average tension [N/mm²]	Permited load F [kN/m]
5	25	115 150 175 200 240 300 365	7	40	3	75
5	50	115 125 150 175 200 240 300 365	7	20	3	150

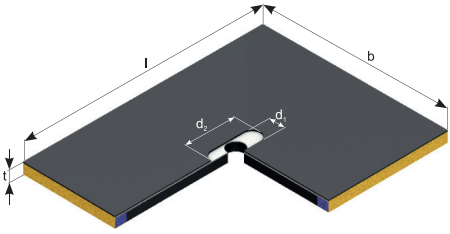
Dimensions of non reinforced sliding elastomer bearing type **TDG 27 SZ** - linear						
Elastomer core thickness d [mm]	Elastomer core width b_E [mm]	Bearing width b [mm]	Bearing thickness t [mm]	Rotation angle [‰]	Average tension [N/mm²]	Permited load F [kN/m]
5	75	115	7	13	3	225
		150				
		175				
		200				
		240				
		300				
		350				
		365				
5	100	150	7	10	3	300
		175				
		200				
		240				
		300				
		365				
10	50	115	12	40	3	150
		150				
		175				
		200				
		240				
		300				
		365				
10	75	115	12	27	3	225
		150				
		175				
		200				
		240				
		300				
		365				
10	100	150	12	20	3	300
		175				
		200				
		240				
		300				
		365				

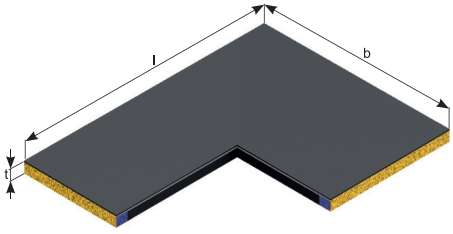
Horizontal movement ± 20 mm
Friction factor between 0,01 and 0,05 at 23°C
Standard length of elastomer bearing is 1 m

Non reinforced sliding point elastomer bearings type NEG



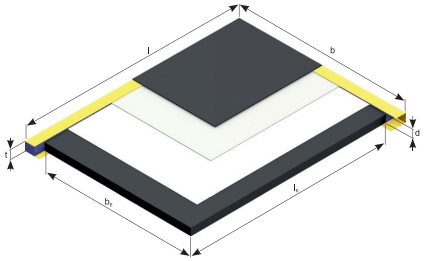






Dimensions marking:

t - bearing thickness [mm]
d – thickness of elastomer core [mm]
b – bearing width [mm]
l – bearing length [mm]
$\mathbf{d_1}$ - diameter of hole [mm]
$\mathbf{d_2}$ - length of oval hole in sliding plate [mm]



Order specification:

b_E x l_E x d/ b x l / t [mm]

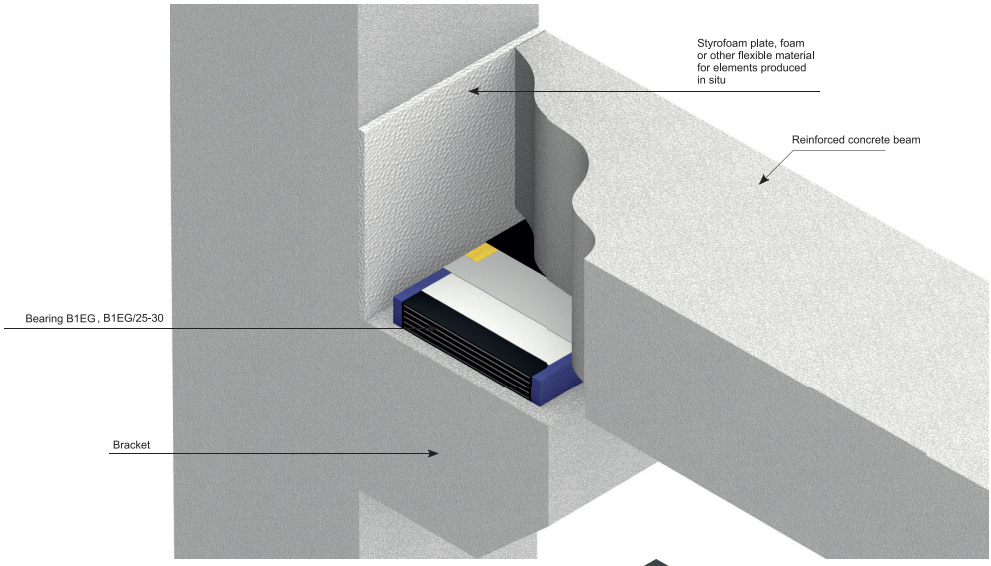
b_E – width of elastomer core [mm]
l_E – wength of elastomer core [mm]
d – thickness of elastomer core [mm]
b – bearing width/sliding plate [mm]
l – bearing length/sliding plate [mm]
t - bearing thickness [mm]

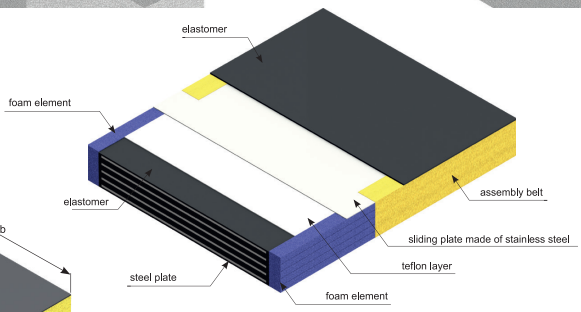
Dimensions of non reinforced sliding elastomer bearing type **NEG** - point bearings

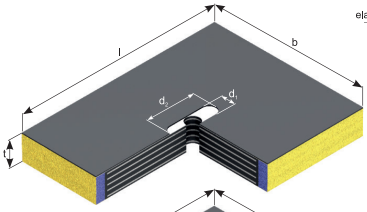
Bearing dimensions		Bearing thickness t [mm]	Thickness of elastomer core d [mm]	Permited load F [kN]	Permited rotation angle		Possible average tension [N/mm²]
Elastomer core b_E x l_E [mm]	Sliding plate b x l [mm]				Shorter side b [‰]	Longer side l [‰]	
100x 100	140 x 140	9	5	50	10	10	5
		14	10	30	20	20	3
100x 150	140x 190	9	5	75	10	7	5
		14	10	54	20	13	3,6
150x200	190x240	9	5	150	7	5	5
		14	10	150	13	10	5
200x200	240 x 240	9	5	200	5	5	5
		14	10	200	10	10	5
		19	15	170	15	15	4,3
200 x 250	240 x 290	9	5	250	5	4	5
		14	10	250	10	8	5
		19	15	222	15	12	4,4
200x300	240 x 340	9	5	300	5	3	5
		14	10	300	10	7	5
		19	15	288	15	10	4,8
250x300	290 x 340	9	5	375	4	3	5
		14	10	375	8	7	5
		19	15	370	12	10	4,9
200x400	240 x 440	9	5	400	5	3	5
		14	10	400	10	5	5
		19	15	400	15	8	5
		24	20	320	20	10	4
250x400	290 x 440	9	5	500	4	3	5
		14	10	500	8	5	5
		19	15	500	12	8	5
		24	20	462	16	10	4,6
300 x 400	340 x 440	9	5	600	3	3	5
		14	10	600	7	5	5
		19	15	600	10	8	5
		24	20	600	13	10	5

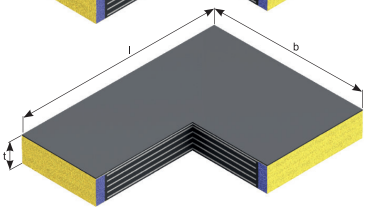
Horizontal movement ± 20 mm
Friction factor between 0,01 and 0,05 at 23°C

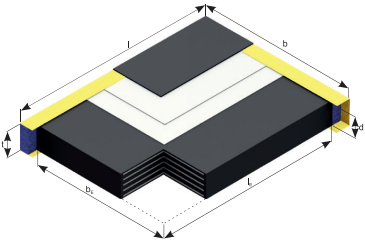
Reinforced sliding point elastomer bearings type B1EG and B1EG/25-30











Dimensions marking:

t – bearing thickness [mm]
d - thickness of elastomer core [mm]
b – bearing width [mm]
l – bearing length [mm]
$\mathbf{d_1}$ - diameter of hole [mm]
$\mathbf{d_2}$ - length of oval hole in sliding plate [mm]
D - bearing diameter [mm]

Order specification:

b x l x d/ b x l / t [mm]

$\mathbf{b_E}$ – elastomer core width [mm]
$\mathbf{l_E}$ – length of elastomer core [mm]
d – elastomer core thickness [mm]
b – width of bearing [mm]
l – length of bearing [mm]
t - thickness of bearing [mm]

Dimensions of reinforced sliding elastomer bearings type **B1EG** - point bearings

Bearing dimensions		Bearing thickness t [mm]	Permited load F [kN]	Permited rotation angle		Possible average tension [N/mm²]
Elastomer core b_E x l_E [mm]	Sliding plate b x l [mm]			Shorter side b [‰]	Longer side l [‰]	
100 x 100	140 x 140	14	150	4	4	up to 15
		18		4	4	
		25		8	8	
		32		12	12	
100 x 150	140 x 190	14	225	4	3	
		18		4	3	
		25		8	6	
		32		12	9	
150 x 200	190 x 240	14	450	3	3	
		18		3	3	
		25		6	6	
		32		9	9	
		39		12	12	
200 x 250	240 x 290	14	750	3	3	
		23		3	3	
		34		6	5	
		45		9	8	
200 x 300	240 x 340	14	900	3	2	
		23		3	2	
		34		6	4	
		45		9	6	
250 x 300	290 x 340	14	1125	2	2	
		23		3	2	
		34		5	4	
		45		7	6	
200 x 400	240 x 440	14	1200	3	1	
		23		3	1	
		34		6	2	
		45		9	4	
250 x 400	290 x 440	14	1500	3	1	
		23		3	1	
		34		5	2	
		45		7	4	
		56		10	5	
300 x 400	340 x 440	14	1800	2	1	
		23		2	1	
		34		4	2	
		45		6	4	
		56		8	5	

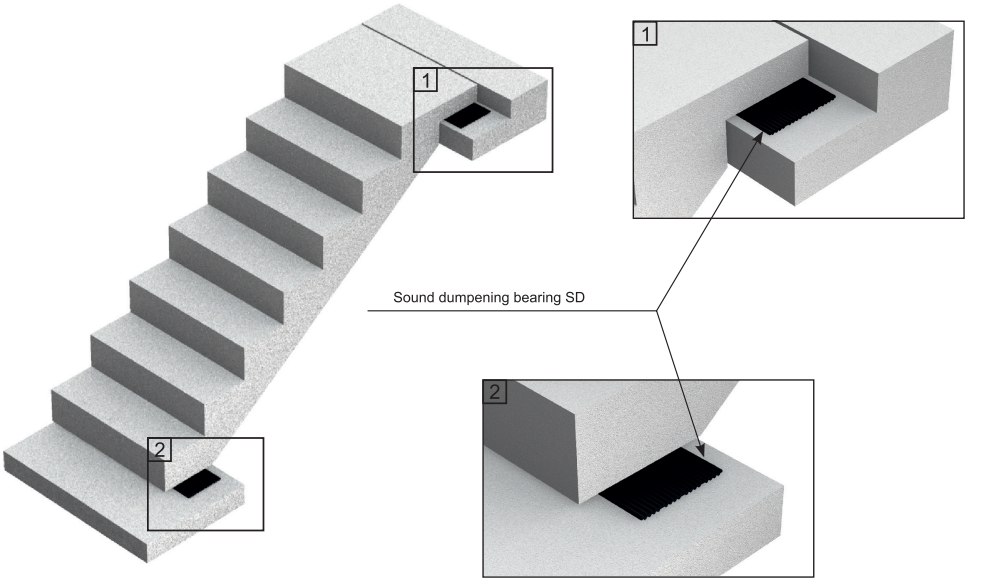
Horizontal movement ± 20 mm
(There is possibility to design bearing with higher movements)
Friction factor between 0,01 and 0,05 at 23°C

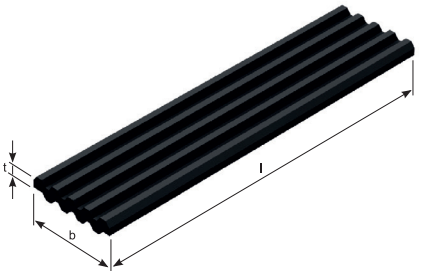
Dimensions of reinforced sliding elastomer bearings type **B1EG/25-30** - point bearings

Bearing dimensions		Bearing thickness t [mm]	Permited load F [kN]	Permited rotation angle		Possible average tension [N/mm²]
Elastomer core b_E x l_E [mm]	Sliding plate b x l [mm]			Shorter side b [‰]	Longer side l [‰]	
100 x 100	160 x 160	14	300	4	4	up to 30
		18		4	4	
		25		8	8	
		32		12	12	
100 x 150	160 x 210	14	450	4	3	
		18		4	3	
		25		8	6	
		32		12	9	
150 x 200	210 x 260	14	900	3	3	
		18		3	3	
		25		6	6	
		32		9	9	
		39		12	12	
200 x 250	260 x 310	14	1500	3	3	
		23		3	3	
		34		6	5	
		45		9	8	
200 x 300	260 x 360	14	1800	3	2	
		23		3	2	
		34		6	4	
		45		9	6	
250 x 300	310 x 360	14	2250	2	2	
		23		3	2	
		34		5	4	
		45		7	6	
200 x 400	260 x 460	14	2400	3	1	
		23		3	1	
		34		6	2	
		45		9	4	
250 x 400	310 x 460	14	3000	3	1	
		23		3	1	
		34		5	2	
		45		7	4	
		56		10	5	
300 x 400	360 x 460	14	3600	2	1	
		23		2	1	
		34		4	2	
		45		6	4	
		56		8	5	

Horizontal movement ± 30 mm
(There is possibility to design bearing with higher movements)
Friction factor between 0,01 and 0,05 at 23°C

Sound dampening elastomer bearing type SD





Order specification:

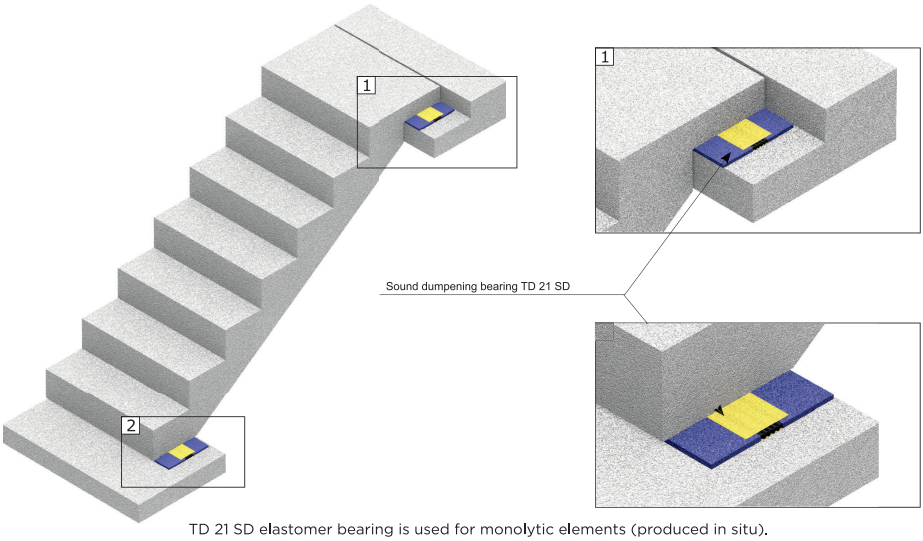
t x b [mm]

t - bearing thickness [mm]
b - bearing width [mm]
l - bearing length [mm]
for t=5 mm - roll 20 m
for t=10 mm - roll 10 m

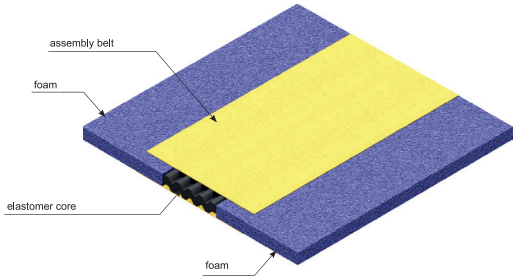
Dimensions of elastomer bearing type **SD**					
Bearing thickness t [mm]	Bearing width b [mm]	Lenght* l [m]	Maximum permited tension σ_m [N/mm^2]	Permited tension for dumpening properties [N/mm^2]	Horizontal movement [mm]
5	**50**	**20**	**up to 15**	**0,1÷1,0**	**± 2**
5	**100**	**20**	**up to 15**	**0,1÷1,0**	**± 2**
5	**150**	**20**	**up to 15**	**0,1÷1,0**	**± 2**
5	**200**	**20**	**up to 15**	**0,1÷1,0**	**± 2**
10	**50**	**10**	**up to 10**	**0,1÷1,0**	**± 4**
10	**100**	**10**	**up to 10**	**0,1÷1,0**	**± 4**
10	**150**	**10**	**up to 10**	**0,1÷1,0**	**± 4**
10	**200**	**10**	**up to 10**	**0,1÷1,0**	**± 4**

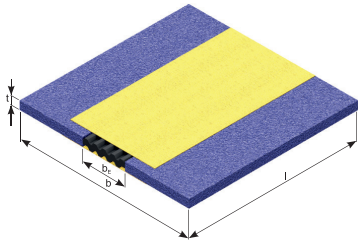
*There is possibility to cut SD bearing into desired lengths

Sound dampening elastomer bearing type TD 21 SD



TD 21 SD elastomer bearing is used for monolytic elements (produced in situ).
Flexible foam near elastomer is only filling element.





Order specification:

t x b_E / b [mm]

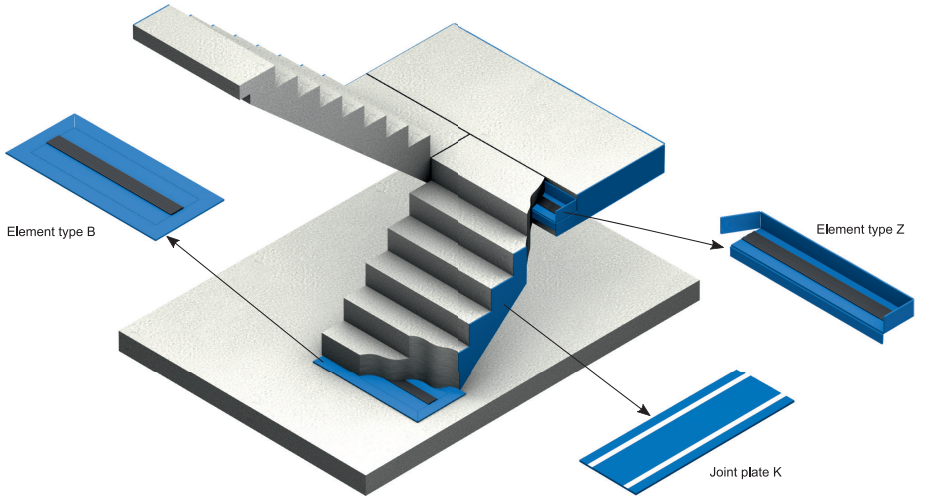
t – bearing thickness [mm]
b_E – elastomer core width [mm]
b – bearing width [mm]
l – bearing length (standard 1 m)

Dimensions of elastomer bearing type **TD 21 SD**

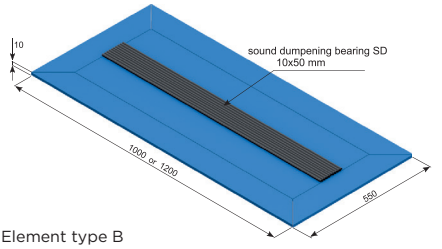
Bearing thickness t [mm]	Elastomer core width b_E [mm]	Bearing width b [mm]	Lenght* l [m]	Maximum permited tension** σ_m [N/mm^2]	Permited tension for dumpening properties** σ_m [N/mm^2]	Horizontal movement [mm]
5	**50**	**100**	**1**	**up to 15**	**0,1÷1,0**	**± 2**
5	**100**	**150**	**1**	**up to 15**	**0,1÷1,0**	**± 2**
10	**50**	**100**	**1**	**up to 10**	**0,1÷1,0**	**± 4**
10	**100**	**150**	**1**	**up to 10**	**0,1÷1,0**	**± 4**

*Standard length of TD 21 SD bearing is 1 meter with possibility to cut into desired request
**Tensions concern bearing core

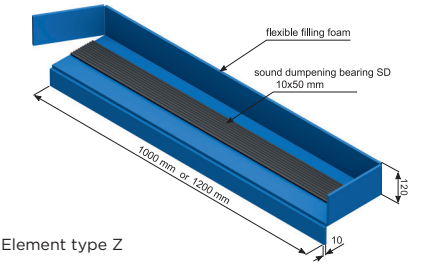
Akustic insulation of staircase landings



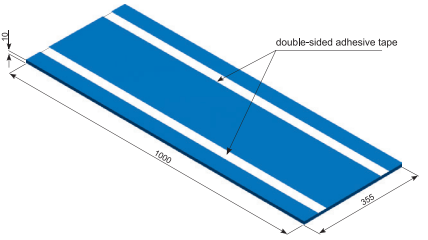
Symbol	Sale unit	Unit	Article no.
Sound dumpening elastomer bearing - type SD with elastic foam type Z 10x50x1000 mm	pcs	pcs	PL-PE-TL-4-57331
Sound dumpening elastomer bearing - type SD with elastic foam type Z 10x50x1200 mm	pcs	pcs	PL-PE-TL-4-57332
Sound dumpening elastomer bearing type SD with elastic foam - type B 10x55x1000 mm	pcs	pcs	PL-PE-TL-4-57330
Sound dumpening elastomer bearing type SD with elastic foam type B 10x55x1200 mm	pcs	pcs	PL-PE-TL-4-51587
Joint plate K 10x355x1000 mm	pcs	pcs	PL-PE-TL-4-27607



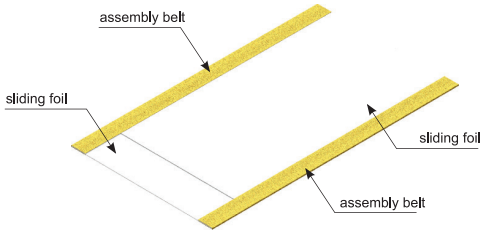
Element type B



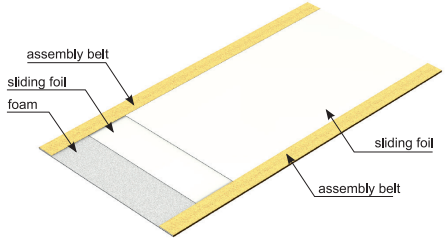
Element type Z



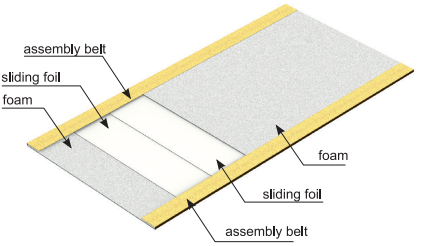
Joint plate K



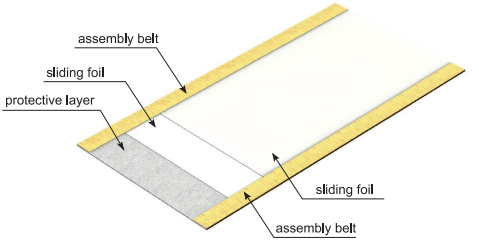
Sliding foil **TG 1 A**					
Thickness t [mm]	Width b [mm]	Length l [m]	Permited tension σ_m [N/mm^2]	Temperature [°C]	Friction factor
1	115 150 175 200 240 300 365 1000	1,5	up to 1	23	0,05 ÷ 0,10



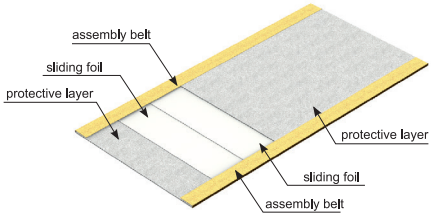
Sliding foil **TG 1 A+b1**					
Thickness t [mm]	Width b [mm]	Length l [m]	Permited tension σ_m [N/mm^2]	Temperature [°C]	Friction factor
3	115 150 175 200 240 300 365	1,5	up to 1	23	0,05 ÷ 0,10



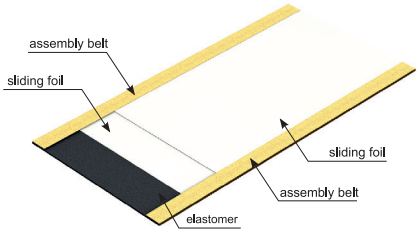
Sliding foil **TG 1 A+c1**					
Thickness t [mm]	Width b [mm]	Length l [m]	Permited tension σ_m [N/mm²]	Temperature [°C]	Friction factor
5	115 150 175 200 240 300 365	1,5	up to 1	23	0,05 ÷ 0,10



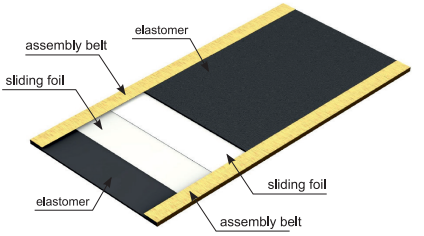
Sliding foil **TG 1 A+b3**					
Thickness t [mm]	Width b [mm]	Length l [m]	Permited tension σ_m [N/mm²]	Temperature [°C]	Friction factor
3	1000	25	up to 0,5	23	0,05 ÷ 0,15



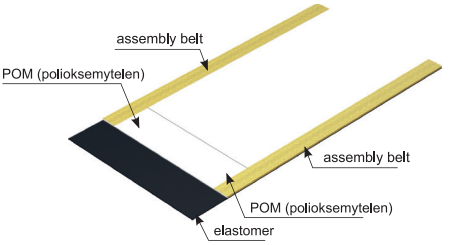
Sliding foil **TG 1 A+c3**					
Thickness t [mm]	Width b [mm]	Length l [m]	Permited tension σ_m [N/mm^2]	Temperature [°C]	Friction factor
5	**1000**	**25**	**up to 0,5**	**23**	**0,05 ÷ 0,15**



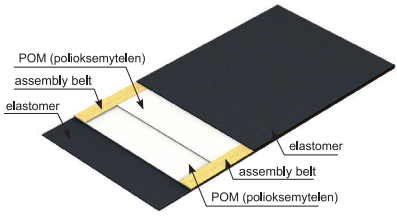
Sliding foil **TG 1 A+b4**					
Thickness t [mm]	Width b [mm]	Length l [m]	Permited tension σ_m [N/mm^2]	Temperature [°C]	Friction factor
3	**115**	**1**	**up to 3**	**23**	**0,05 ÷ 0,10**
	150				
	175				
	200				
	240				
	300				
	365				



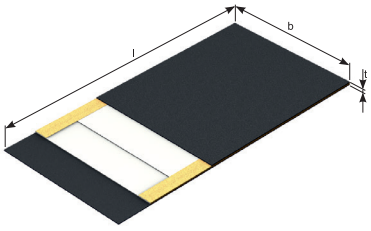
Sliding foil **TG 1 A+c4**					
Thickness t [mm]	Width b [mm]	Length l [m]	Permited tension σ_m [N/mm²]	Temperature [°C]	Friction factor
5	115 150 175 200 240 300 365	1	up to 3	23	0,05 ÷ 0,10



Sliding foil **TG 5 POM + b4**					
Thickness t [mm]	Width b [mm]	Length l [m]	Permited tension σ_m [N/mm²]	Temperature [°C]	Friction factor
4	115 150 175 200 240 300 365	1	up to 10	23	0,05 ÷ 0,10



Sliding foil **TG 5 POM+c4**					
Thickness t [mm]	Width b [mm]	Length l [m]	Permited tension σ_m [N/mm^2]	Temperature [°C]	Friction factor
6	115 150 175 200 240 300 365	1	up to 10	23	0,05 ÷ 0,10



Order specification:

t x b x l [mm]

t – Thickness of sliding foil [mm]
b – Width of sliding foil [mm]
l – Length of sliding foil [mm]