

SYLODAMP®



Høyabsorberende elastomer

Sylodamp® er et elastisk polyuretanmateriale med svært høy materialdemping, spesielt utviklet for å absorbere støt og slag effektivt.

Sylodamp® har en særlig høy evne til å ta opp energi og utmerker seg med dempeegenskaper som forblir stabile og effektive gjennom flere tiår med bruk, og gir pålitelig beskyttelse. Dette gjør materialet ideelt for områder som utsettes for kraftige støt.

Fordeler

- Dempende
- Høy kjemisk resistens
- Lang levetid
- Godt dokumentert

Leveringsprogram

Bygg og industri

Sylodamp leveres med følgende standarddimensjoner:

Tykkelse:	12 og 25 mm (liming ved større tykkelser)
Standardruller:	1500 x 5000 mm
Med slitesjikt:	1450 x 5000 mm
Remser:	1500 mm x ønsket bredde
Plater/Klosser:	Ønskede dimensjoner




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SYLODAMP®

OVERVIEW

Product properties

Material	mixed-cell PU elastomer (polyurethane) with pronounced damping properties
Standard delivery dimension	Thickness: 12.5 mm / 25 mm
	Roll: 1.5 m wide, 5.0 m long
	Mat: 1.5 m wide, 1.0 m long
	Strip: up to 1.5 m wide, up to 5.0 m long

Other dimensions, punched and moulded parts on request.
Syloodamp® SP 500 and Syloodamp® SP 1000 are only available in the maximum dimension of mats.

Syloodamp® Material type

Material properties	Test methods	SP 10	SP 30	SP 100	SP 300	SP 500	SP 1000
Colour		lemon yellow	pastel green	light green	traffic green	curry	turquoise green
Static range of use ¹ in N/mm ²		0.005	0.012	0.050	0.150	0.250	0.500
Load peaks ¹ in N/mm ²		0.25	0.50	2.00	3.00	3.50	5.00
Mechanical loss factor	DIN 53513 ²	0.61	0.52	0.50	0.49	0.48	0.47
Rebound resilience in %	EN ISO 8307	13	15	15	14	16	15
Specific energy absorption in mJ/mm ² (at 25 mm bearing thickness)	Getzner Werkstoffe	up to 1.8	up to 4.9	up to 12.0	up to 30.0	up to 50.0	up to 84.0
Resistance to strain in N/mm ² (at 10 % deformation)	EN ISO 844 ²	0.01	0.03	0.10	0.30	0.50	1.00
Compression ³ set in %	EN ISO 1856	<5	<5	<5	<5	<5	<5
Static shear modulus ¹ in N/mm ²	DIN ISO 1827 ²	0.057	0.130	0.310	1.100	1.300	1.900
Dynamic shear modulus ¹ in N/mm ²	DIN ISO 1827 ²	0.24	0.53	0.89	2.30	3.80	5.00
Min. tensile stress at rupture in N/mm ²	DIN EN ISO 527-3/5/500 ²	0.3	0.45	0.9	1.8	2.7	3.2
Min. tensile elongation at rupture in %	DIN EN ISO 527-3/5/500 ²	150	150	160	160	160	160
Abrasion ³ in mm ³	DIN ISO 4649	≤4,800	≤3,100	≤2,000	≤1,700	≤1,600	≤1,300
Coefficient of friction (steel)	EN ISO 8295 ²	≥0.5	≥0.5	≥0.5	≥0.5	≥0.5	≥0.5
Coefficient of friction (concrete)	EN ISO 8295 ²	≥0.7	≥0.7	≥0.7	≥0.7	≥0.7	≥0.7
Specific volume resistance in Ω·cm	DIN EN 62631-3-1 ²	>10 ¹²	>10 ¹²	>10 ¹²	>10 ¹²	>10 ¹²	>10 ¹²
Thermal conductivity in W/mK	EN 12667	0.039	0.043	0.061	0.082	0.100	0.110
Temperature range ⁴ in °C		-30 to 70					
Temperature peak in °C	short term ⁵	120					
Flammability	EN ISO 11925-2	class E / EN 13501-1					

¹ Values apply to shape factor 3

² Measurement/evaluation in accordance with the relevant standard

³ The measurement is performed on a density-dependent basis with differing test parameters

⁴ Take account of heating caused by energy conversion

⁵ Application-specific

All information and data is based on our current knowledge. The data can be applied for calculations and as guidelines, are subject to typical manufacturing tolerances and are not guaranteed. Material properties as well as their tolerances can vary depending on type of application or use and are available from Getzner on request.

Further information can be found in VDI Guideline 2062 (Association of German Engineers) as well as in glossary. Further characteristic values on request.

SYLODAMP® SP10

SP
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DATA SHEET

Product characteristics

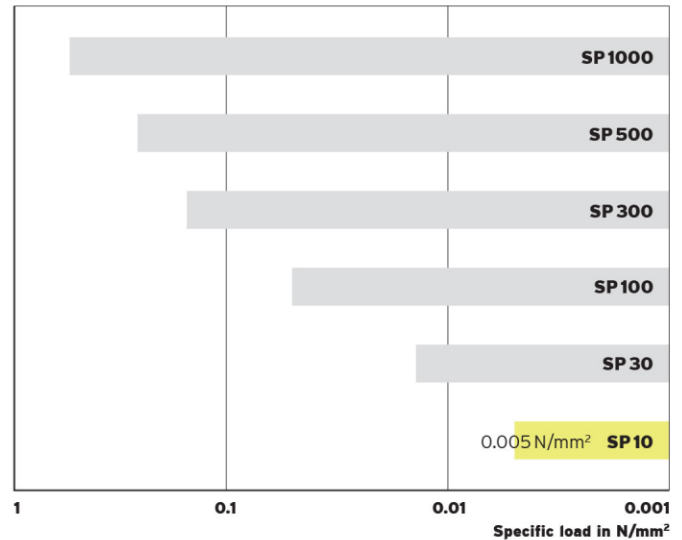
Material	mixed-cell PU elastomer (polyurethane)
Colour	lemon yellow
Standard delivery dimension	Thickness: 12.5 mm / 25 mm Roll: 1.5 m wide, 5.0 m long Strip: up to 1.5 m wide, up to 5.0 m long

Other dimensions, punched and molded parts on request.

Range of use	Compressive load	Deformation
	shape factor-dependent, values apply to shape factor 3	
Static range of use (static loads)	up to 0.005 N/mm ²	approx. 3 %
Impact range of use (dynamic loads)		up to 60 %
Load peaks (occasional, brief loads)	up to 0.25 N/mm ²	approx. 80 %

Standard Sylodamp® range

Static range of use



Material properties		Test methods	Comment
Mechanical loss factor	0.61	DIN 53513 ¹	temperature-, frequency-, specific load- and amplitude-dependent
Rebound resilience	13 %	EN ISO 8307 ¹	
Specific energy absorption	up to 1.8 mJ/mm ²	Getzner Werkstoffe	at a thickness of 25 mm
Compression hardness ³	0.01 N/mm ²	EN ISO 844 ¹	at 10 % linear compression, 1 st load cycle
Compression set ²	< 5 %	EN ISO 1856	25 % deformation, 23 °C, 72 h, 30 min after removal of load
Static shear modulus ³	0.057 N/mm ²	DIN ISO 1827 ¹	at a pretension of 0.01 N/mm ²
Dynamic shear modulus ³	0.24 N/mm ²	DIN ISO 1827 ¹	at a pretension of 0.01 N/mm ² , 10 Hz
Min. tensile stress at rupture	0.30 N/mm ²	DIN EN ISO 527-3/5/500 ¹	
Min. tensile elongation at rupture	150 %	DIN EN ISO 527-3/5/500 ¹	
Abrasion ²	≤ 4,800 mm ³	DIN ISO 4649 ¹	load 10 N
Coefficient of friction (steel)	0.5	EN ISO 8295 ¹	dry, static friction
Coefficient of friction (concrete)	0.7	EN ISO 8295 ¹	dry, static friction
Specific volume resistance	> 10 ¹² Ω·cm	EN IEC 62631-3-1 ¹	dry
Thermal conductivity	0.039 W/mK	DIN EN 12667	
Temperature range ⁴	-30 °C to 70 °C		optimum damping range from 5 °C to 40 °C
Flammability	class E	EN ISO 11925-2	normal flammable, EN 13501-1

¹Measurement / evaluation in accordance with the relevant standard

²The measurement is performed on a density-dependent basis with differing test parameters

³Values apply to shape factor 3

⁴Take account of heating caused by energy conversion



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SYLODAMP® SP 30

SP
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DATA SHEET

Product characteristics

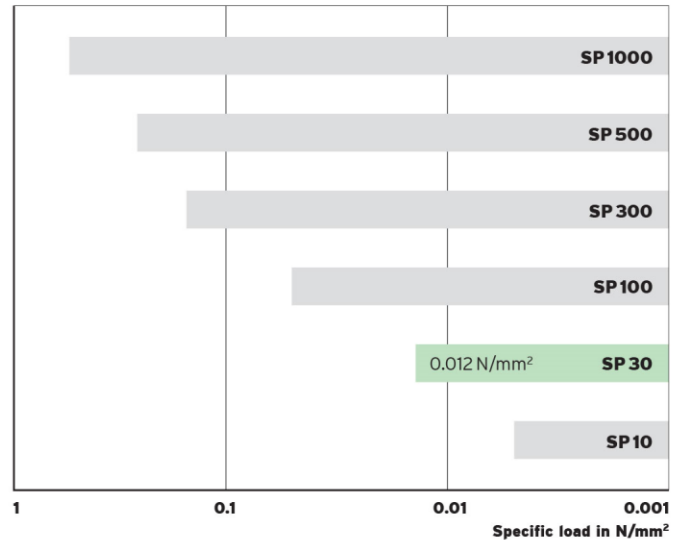
Material	mixed-cell PU elastomer (polyurethane)
Colour	pastel green
Standard delivery dimension	Thickness: 12.5 mm / 25 mm Roll: 1.5 m wide, 5.0 m long Strip: up to 1.5 m wide, up to 5.0 m long

Other dimensions, punched and molded parts on request.

Range of use	Compressive load	Deformation
	shape factor-dependent, values apply to shape factor 3	
Impact range of use (static loads)	bis 0.012 N/mm ²	approx. 2.2 %
Impact range of use (dynamic loads)		up to 60 %
Load peaks (occasional, brief loads)	bis 0.5 N/mm ²	approx. 80 %

Standard Sylodamp® range

Static range of use



Material properties		Test methods	Comment
Mechanical loss factor	0.52	DIN 53513 ¹	temperature-, frequency-, specific load- and amplitude-dependent
Rebound resilience	15 %	EN ISO 8307 ¹	
Specific energy absorption	up to 4.9 mJ/mm ²	Getzner Werkstoffe	at a thickness of 25 mm
Compression hardness ³	0.03 N/mm ²	EN ISO 844 ¹	at 10 % linear compression, 1 st load cycle
Compression set ²	< 5 %	EN ISO 1856	25 % deformation, 23 °C, 72 h, 30 min after removal of load
Static shear modulus ³	0.13 N/mm ²	DIN ISO 1827 ¹	at a pretension of 0.03 N/mm ²
Dynamic shear modulus ³	0.53 N/mm ²	DIN ISO 1827 ¹	at a pretension of 0.03 N/mm ² , 10 Hz
Min. tensile stress at rupture	0.45 N/mm ²	DIN EN ISO 527-3/5/500 ¹	
Min. tensile elongation at rupture	150 %	DIN EN ISO 527-3/5/500 ¹	
Abrasion ²	≤ 3,100 mm ³	DIN ISO 4649 ¹	load 10 N
Coefficient of friction (steel)	0.5	EN ISO 8295 ¹	dry, static friction
Coefficient of friction (concrete)	0.7	EN ISO 8295 ¹	dry, static friction
Specific volume resistance	> 10 ¹² Ω·cm	DIN EN 62631-3-1 ¹	dry
Thermal conductivity	0.043 W/mK	DIN EN 12667	
Temperature range ⁴	-30 °C to 70 °C		optimum damping range from 5 °C to 40 °C
Flammability	class E	EN ISO 11925-2	normal flammable, EN 13501-1

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³ Values apply to shape factor 3

⁴ Take account of heating caused by energy conversion



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SYLODAMP® SP100

SP
100

DATA SHEET

Product characteristics

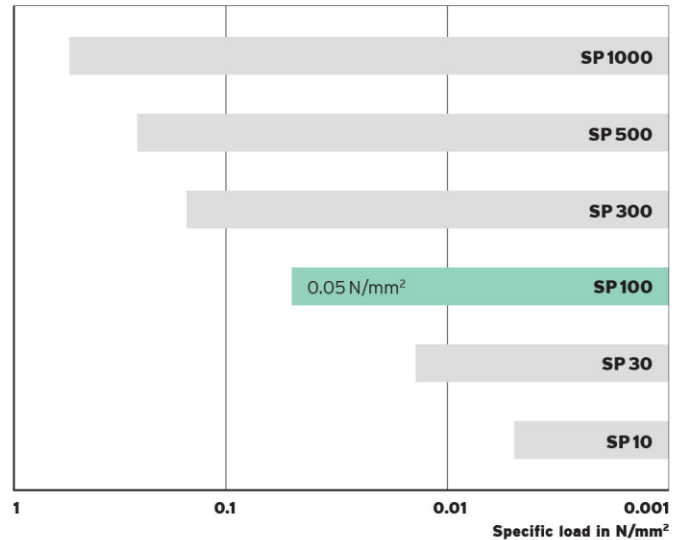
Material	mixed-cell PU elastomer (polyurethane)
Colour	light green
Standard delivery dimension	Thickness: 12.5 mm / 25 mm Roll: 1.5 m wide, 5.0 m long Strip: up to 1.5 m wide, up to 5.0 m long

Other dimensions, punched and molded parts on request.

Range of use	Compressive load	Deformation
	shape factor-dependent, values apply to shape factor 3	
Static range of use (static loads)	up to 0.05 N/mm ²	approx. 4 %
Impact range of use (dynamic loads)		up to 55 %
Load peaks (occasional, brief loads)	up to 2 N/mm ²	approx. 75 %

Standard Sylodamp® range

Static range of use



Material properties		Test methods	Comment
Mechanical loss factor	0.5	DIN 53513 ¹	temperature-, frequency-, specific load- and amplitude-dependent
Rebound resilience	15 %	EN ISO 8307 ¹	
Specific energy absorption	up to 12 mJ/mm ²	Getzner Werkstoffe	at a thickness of 25 mm
Compression hardness ³	0.1 N/mm ²	EN ISO 844 ¹	at 10 % linear compression, 1 st load cycle
Compression set ²	< 5 %	EN ISO 1856	25 % deformation, 23 °C, 72 h, 30 min after removal of load
Static shear modulus ³	0.31 N/mm ²	DIN ISO 1827 ¹	at a pretension of 0.1 N/mm ²
Dynamic shear modulus ³	0.89 N/mm ²	DIN ISO 1827 ¹	at a pretension of 0.1 N/mm ² , 10 Hz
Min. tensile stress at rupture	0.9 N/mm ²	DIN EN ISO 527-3/5/500 ¹	
Min. tensile elongation at rupture	160 %	DIN EN ISO 527-3/5/500 ¹	
Abrasion ²	≤ 2,000 mm ³	DIN ISO 4649 ¹	load 10 N
Coefficient of friction (steel)	0.5	EN ISO 8295 ¹	dry, static friction
Coefficient of friction (concrete)	0.7	EN ISO 8295 ¹	dry, static friction
Specific volume resistance	> 10 ¹² Ω·cm	DIN EN 62631-3-1 ¹	dry
Thermal conductivity	0.061 W/mK	DIN EN 12667	
Temperature range ⁴	-30 °C to 70 °C		optimum damping range from 5 °C to 40 °C
Flammability	class E	EN ISO 11925-2	normal flammable, EN 13501-1

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³ Values apply to shape factor 3

⁴ Take account of heating caused by energy conversion



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SYLODAMP® SP 300

SP
300

DATA SHEET

Product characteristics

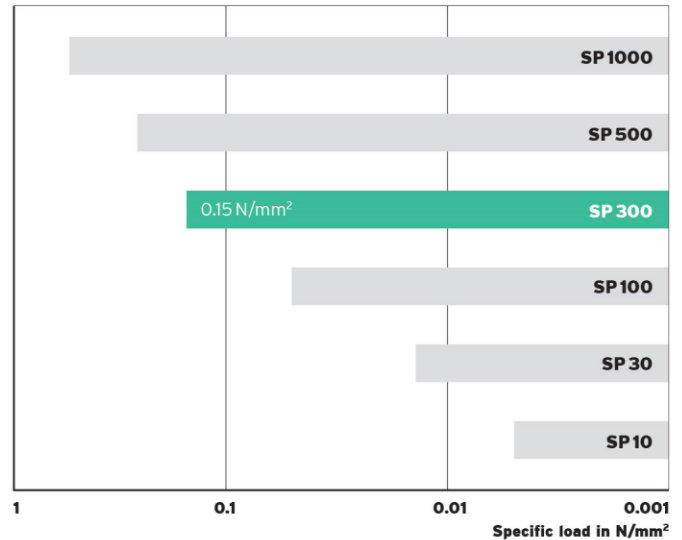
Material	mixed-cell PU elastomer (polyurethane)
Colour	traffic green
Standard delivery dimension	Thickness: 12.5 mm / 25 mm Roll: 1.5 m wide, 5.0 m long Strip: up to 1.5 m wide, up to 5.0 m long

Other dimensions, punched and molded parts on request.

Range of use	Compressive load	Deformation
	shape factor-dependent, values apply to shape factor 3	
Static range of use (static loads)	up to 0.15 N/mm ²	approx. 4.2 %
Impact range of use (dynamic loads)		up to 50 %
Load peaks (occasional, brief loads)	up to 3 N/mm ²	approx. 70 %

Standard Sylodamp® range

Static range of use



Material properties		Test methods	Comment
Mechanical loss factor	0.49	DIN 53513 ¹	temperature-, frequency-, specific load- and amplitude-dependent
Rebound resiliance	14 %	EN ISO 8307 ¹	
Specific energy absorption	up to 30 mJ/mm ²	Getzner Werkstoffe	at a thickness of 25 mm
Compression hardness ³	0.3 N/mm ²	EN ISO 844 ¹	at 10 % linear compression, 1 st load cycle
Compression set ²	< 5 %	EN ISO 1856	25 % deformation, 23 °C, 72 h, 30 min after removal of load
Static shear modulus ³	1.1 N/mm ²	DIN ISO 1827 ¹	at a pretension of 0.3 N/mm ²
Dynamic shear modulus ³	2.3 N/mm ²	DIN ISO 1827 ¹	at a pretension of 0.3 N/mm ² , 10 Hz
Min. tensile stress at rupture	1.8 N/mm ²	DIN EN ISO 527-3/5/500 ¹	
Min. tensile elongation at rupture	160 %	DIN EN ISO 527-3/5/500 ¹	
Abrasion ²	≤ 1,700 mm ³	DIN ISO 4649 ¹	load 10 N
Coefficient of friction (steel)	0.5	EN ISO 8295 ¹	dry, static friction
Coefficient of friction (concrete)	0.7	EN ISO 8295 ¹	dry, static friction
Specific volume resistance	> 10 ¹² Ω·cm	DIN EN 62631-3-1 ¹	dry
Thermal conductivity	0.082 W/mK	DIN EN 12667	
Temperature range ⁴	-30 °C to 70 °C		optimum damping range from 5 °C to 40 °C
Flammability	class E	EN ISO 11925-2	normal flammable, EN 13501-1

¹ Measurement / evaluation in accordance with the relevant standard

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³ Values apply to shape factor 3

⁴ Take account of heating caused by energy conversion



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SYLODAMP® SP 500

SP
500

DATA SHEET

Product characteristics

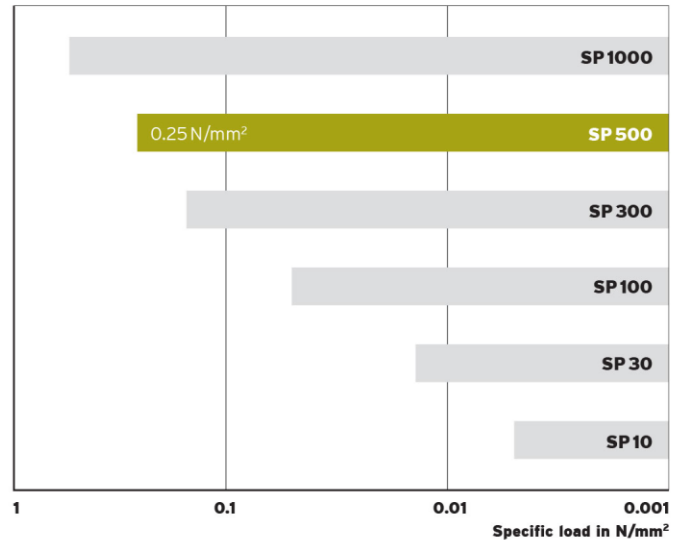
Material	mixed-cell PU elastomer (polyurethane)
Colour	curry
Standard delivery dimension	Thickness: 12.5 mm / 25 mm Mat: 1.5 m wide, 1.0 m long

Other dimensions, punched and molded parts on request.

Range of use	Compressive load	Deformation
	shape factor-dependent, values apply to shape factor 3	
Static range of use (static loads)	up to 0.25 N/mm ²	approx. 4.3 %
Impact range of use (dynamic loads)		up to 45 %
Load peaks (occasional, brief loads)	up to 3.5 N/mm ²	approx. 65 %

Standard Sylodamp® range

Static range of use



Material properties		Test methods	Comment
Mechanical loss factor	0.48	DIN 53513 ¹	temperature-, frequency-, specific load- and amplitude-dependent
Rebound resilience	16 %	EN ISO 8307 ¹	
Specific energy absorption	up to 50 mJ/mm ²	Getzner Werkstoffe	at a thickness of 25 mm
Compression hardness ³	0.5 N/mm ²	EN ISO 844 ¹	at 10 % linear compression, 1 st load cycle
Compression set ²	< 5 %	EN ISO 1856	25 % deformation, 23 °C, 72 h, 30 min after removal of load
Static shear modulus ³	1.3 N/mm ²	DIN ISO 1827 ¹	at a pretension of 0.5 N/mm ²
Dynamic shear modulus ³	3.8 N/mm ²	DIN ISO 1827 ¹	at a pretension of 0.5 N/mm ² , 10 Hz
Min. tensile stress at rupture	2.7 N/mm ²	DIN EN ISO 527-3/5/500 ¹	
Min. tensile elongation at rupture	160 %	DIN EN ISO 527-3/5/500 ¹	
Abrasion ²	≤ 1,600 mm ³	DIN ISO 4649 ¹	load 10 N
Coefficient of friction (steel)	0.5	EN ISO 8295 ¹	dry, static friction
Coefficient of friction (concrete)	0.7	EN ISO 8295 ¹	dry, static friction
Specific volume resistance	> 10 ¹² Ω·cm	DIN EN 62631-3-1 ¹	dry
Thermal conductivity	0.10 W/mK	DIN EN 12667	
Temperature range ⁴	-30 °C to 70 °C		optimum damping range from 5 °C to 40 °C
Flammability	class E	EN ISO 11925-2	normal flammable, EN 13501-1

¹ Measurement / evaluation in accordance with the relevant standard

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³ Values apply to shape factor 3

⁴ Take account of heating caused by energy conversion



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SYLODAMP® SP1000

SP
1000

DATA SHEET

Product characteristics

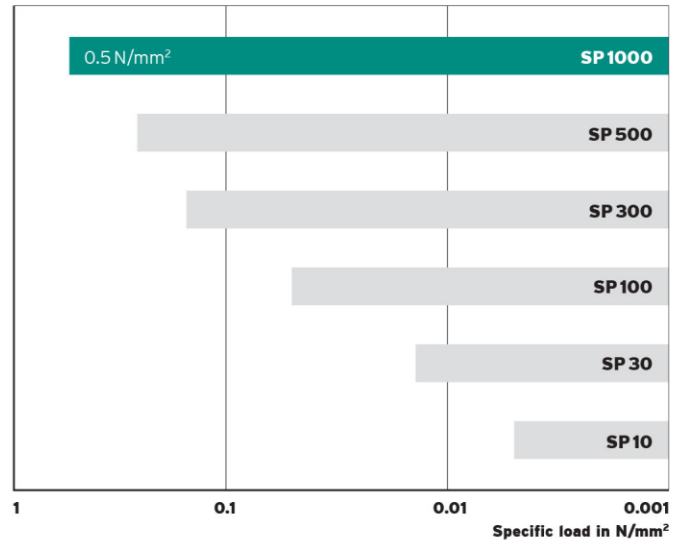
Material	mixed-cell PU elastomer (polyurethane)
Colour	traffic green
Standard delivery dimension	Thickness: 12.5 mm / 25 mm Mat: 1.5 m wide, 1.0 m long

Other dimensions, punched and molded parts on request.

Range of use	Compressive load	Deformation
	shape factor-dependent, values apply to shape factor 3	
Static range of use (static loads)	up to 0.5 N/mm ²	approx. 4.8 %
Impact range of use (dynamic loads)		up to 40 %
Load peaks (occasional, brief loads)	up to 5 N/mm ²	approx. 60 %

Standard Sylodamp® range

Static range of use



Material properties		Test methods	Comment
Mechanical loss factor	0.47	DIN 53513 ¹	temperature-, frequency-, specific load- and amplitude-dependent
Rebound resilience	15 %	EN ISO 8307 ¹	
Specific energy absorption	up to 84 mJ/mm ²	Getzner Werkstoffe	at a thickness of 25 mm
Compression hardness ³	1.0 N/mm ²	EN ISO 844 ¹	at 10 % linear compression, 1 st load cycle
Compression set ²	< 5 %	EN ISO 1856	25 % deformation, 23 °C, 72 h, 30 min after removal of load
Static shear modulus ³	1.9 N/mm ²	DIN ISO 1827 ¹	at a pretension of 1.0 N/mm ²
Dynamic shear modulus ³	5 N/mm ²	DIN ISO 1827 ¹	at a pretension of 1.0 N/mm ² , 10 Hz
Min. tensile stress at rupture	3.2 N/mm ²	DIN EN ISO 527-3/5/500 ¹	
Min. tensile elongation at rupture	160 %	DIN EN ISO 527-3/5/500 ¹	
Abrasion ²	≤ 1,300 mm ³	DIN ISO 4649 ¹	load 10 N
Coefficient of friction (steel)	0.5	EN ISO 8295 ¹	dry, static friction
Coefficient of friction (concrete)	0.7	EN ISO 8295 ¹	dry, static friction
Specific volume resistance	> 10 ¹² Ω·cm	DIN EN 62631-3-1 ¹	dry
Thermal conductivity	0.11 W/mK	DIN EN 12667	
Temperature range ⁴	-30 °C to 70 °C		optimum damping range from 5 °C to 40 °C
Flammability	class E	EN ISO 11925-2	normal flammable, EN 13501-1

¹ Measurement / evaluation in accordance with the relevant standard

² The measurement is performed on a density-dependent basis with differing test parameters

³ Values apply to shape factor 3

⁴ Take account of heating caused by energy conversion