Overview Sylodyn®

by getzner sylodyn®

Material
closed-cell PU elastomer (polyurethane) with highly elastic properties

Standard delivery dimension
Thickness: 0.5 in / 1.0 in
Roll: 4.9 ft wide, 16.4 ft long
Strip: up to 4.9 ft wide, up to 16.4 ft long
Other dimensions, punched and moulded parts on request.

Sylodyn® Material type

Material properties	Test methods	NB	NC	ND	NE	NF	HRB HS 3000	HRB HS 6000	HRB HS 12000
Color		red	yellow	green	blue	violet	dark green	dark blue	dark brown
Static range of use[1] in psi		10.9	21.8	50.8	108.8	217.6	435.1	870.2	1,740.5
Load peaks[1] in psi		290	435	610	870	985	1740	2611	3481
Mechanical loss factor	DIN 53513[2]	0.07	0.07	0.08	0.08	0.09	0.07	0.07	0.08
Rebound resilience in %	EN ISO 8307	70	70	70	70	70	70	70	70
Compression set[3] in %	EN ISO 1856[2]	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Static modulus of elasticity[1] in psi		108.8	163.9	436.6	970.3	1,739.0	4,815.3	10,732.8	26,251.8
Dynamic modulus of elasticity[1] in psi	DIN 53513[2]	123.3	191.5	496.0	1,093.6	2,166.9	7,121.4	16,505.3	46,847.2
Static shear modulus in psi	DIN ISO 1827[2]	17.4	27.6	55.1	100.1	143.6	348.1	507.6	580.2
Dynamic shear modulus in psi	DIN ISO 1827[2]	24.7	38.2	80.2	148.1	215.2	406.1	609.2	768.7
Min. tensile stress at rupture in psi	EN ISO 527-3/5/500[2]	145.0	203.1	348.1	565.6	725.2	1,740.5	2,175.6	2,320.6
Min. tensile elongation at rupture in %	EN ISO 527-3/5/500[2]	300	300	300	300	300	400	400	400
Abrasion[3] in in³	DIN EN ISO 4649	≤ 0.0549	≤ 0.0183	≤ 0.0305	≤ 0.0183	≤ 0.0122	≤ 0.0061	≤ 0.0049	≤ 0.0043
Coefficient of friction (steel)	EN ISO 8295[2]	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.4
Coefficient of friction (concrete)	EN ISO 8295[2]	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.6
Coefficient of friction (wood)	EN ISO 8295[2]	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.3
Specific volume resistance in Ω·inch	EN IEC 62631-3-1[2]	$> 4 \cdot 10^9$	$> 4 \cdot 10^9$	$> 4 \cdot 10^9$	$> 4 \cdot 10^9$	$> 4 \cdot 10^9$	$> 4 \cdot 10^9$	$> 4 \cdot 10^9$	$> 4 \cdot 10^9$
Thermal conductivity in W/(mK)	EN 12667	0.07	0.08	0.11	0.13	0.15	0.16	0.17	0.19
Temperature range in °F		-22 to 158							
Temperature peak in °F	short term[4]	248							
Flammability	EN ISO 11925-2	class E/EN 13501							

[1] Values apply to shape factor q = 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] 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.

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Overview Sylodyn®

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by getzner sylodyn®

Material
closed-cell PU elastomer (polyurethane) with highly elastic properties

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 moulded parts on request.

Sylodyn® Material type

NB NC ND NE NF HRB HS 3000 HRB HS 6000 HRB HS 12000

Material properties	Test methods								
Colour		red	yellow	green	blue	violet	dark green	dark blue	dark brown
Static range of use[1] in N/mm²		0.075	0.15	0.35	0.75	1.50	3.00	6.00	12.00
Load peaks[1] in N/mm²		2.00	3.00	4.20	6.00	6.80	12.00	18.00	24.00
Mechanical loss factor	DIN 53513[2]	0.07	0.07	0.08	0.08	0.09	0.07	0.07	0.08
Rebound resilience in %	EN ISO 8307	70	70	70	70	70	70	70	70
Compression set[3] in %	EN ISO 1856[2]	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Static modulus of elasticity[1] in N/mm²		0.75	1.13	3.01	6.69	11.99	33.20	74.00	181.00
Dynamic modulus of elasticity[1] in N/mm²	DIN 53513[2]	0.85	1.32	3.42	7.54	14.94	49.10	113.80	323.00
Static shear modulus in N/mm²	DIN ISO 1827[2]	0.12	0.19	0.38	0.69	0.99	2.40	3.50	4.00
Dynamic shear modulus in N/mm²	DIN ISO 1827[2]	0.17	0.26	0.55	1.02	1.48	2.80	4.20	5.30
Min. tensile stress at rupture in N/mm²	EN ISO 527-3/5/100[2]	1.00	1.40	2.40	3.90	5.00	12.00	15.00	16.00
Min. tensile elongation at rupture in %	EN ISO 527-3/5/100[2]	300	300	300	300	300	400	400	400
Abrasion[3] in mm³	DIN ISO 4649	≤ 900	≤ 300	≤ 500	≤ 300	≤ 200	≤ 100	≤ 80	≤ 70
Coefficient of friction (steel)	EN ISO 8295[2]	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.4
Coefficient of friction (concrete)	EN ISO 8295[2]	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.6
Coefficient of friction (wood)	EN ISO 8295[2]	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.3
Specific volume resistance in Ω·cm	EN IEC 62631-3-1[2]	$>10^{10}$	$>10^{10}$	$>10^{10}$	$>10^{10}$	$>10^{10}$	$>10^{10}$	$>10^{10}$	$>10^{10}$
Thermal conductivity in W/(mK)	EN 12667	0.07	0.08	0.11	0.13	0.15	0.16	0.17	0.19
Temperature range in °C		-30 to 70							
Temperature peak in °C	short term[4]	120							
Flammability	EN ISO 11925-2	class E/EN 13501							

[1] Values apply to shape factor q = 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] 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.

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