



Super Lightest Load Die Spring-Purple

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Material	Color	Code									
Equivalent to SWOSC-V	purple	SIMY									
Content	Error										
Load	±10%										
Shape angle	under 2°										
Free length	Tolerance						The method of load calculation: Load=Spring rate x compression N=N/mm x Fmm(kgf=N x 0.101972) Soild height is the reference				
15~50	±0.5										
55~500	±1%										
Code No.			Cycle life			1 million		0.5 million		0.3 million	
			Inner Dia. (mm)	Spring rate Kgf/mm	Soild height (mm)	F=Lx50%		F=Lx55%		F=Lx60%	
Code	Outer Dia. (mm)	Free length (mm)				Max compression F(mm)	Load (kgf)	Max compression F(mm)	Load (kgf)	Max compression F(mm)	Load (kgf)
SIMC	6	15	3	2.26(0.23)	6.5	7.5	27 (2.8)	8.3	30 (3.1)	9.0	33 (3.4)
		20		1.81(0.18)	8.0	10.0		11.0		12.0	
		25		1.51(0.15)	9.0	12.5		13.8		15.0	
		30		1.29(0.13)	11.0	15.0		16.5		18.0	
		35		1.13(0.12)	13.0	17.5		19.3		21.0	
		40		1.01(0.10)	15.0	20.0		22.0		24.0	
SIMC	8	15	4.6	3.9 (0.40)	5.0	7.5	29 (3.0)	8.3	31 (3.2)	9.0	34 (3.5)
		20		2.9 (0.30)	6.6	10.0		11.0		12.0	
		25		2.3 (0.24)	8.0	12.5		13.8		15.0	
		30		1.9 (0.20)	9.3	15.0		16.5		18.0	
		35		1.6 (0.17)	10.5	17.5		19.3		21.0	
		40		1.4 (0.15)	11.8	20.0		22.0		24.0	
		45		1.3 (0.14)	13.1	22.5		24.8		27.0	
		50		1.2 (0.13)	14.4	25.0		27.5		30.0	
		55		1.0 (0.11)	15.7	27.5		30.3		33.0	
		60		0.9 (0.10)	16.7	30.0		33.0		36.0	
		65		0.8 (0.09)	18.3	32.5		35.8		39.0	
		70		0.8 (0.09)	19.5	35.0		38.5		42.0	
		75		0.7 (0.08)	21.0	37.5		41.3		45.0	
		80		0.7 (0.08)	22.2	40.0		44.0		48.0	

			Cycle life			1 million		0.5 million		0.3 million	
Code No.			Inner Dia. (mm)	Spring rate Kgf/mm	Soild height (mm)	F=Lx50%		F=Lx55%		F=Lx60%	
Code	Outer Dia. (mm)	Free length (mm)				Max compression F(mm)	Load (kgf)	Max compression F(mm)	Load (kgf)	Max compression F(mm)	Load (kgf)
SIMC	10	15	5.8	6.1 (0.63)	6.0	7.5	46 (4.7)	8.3	50 (5.1)	9.0	54 (5.5)
		20		4.6 (0.47)	7.5	10.0		11.0		12.0	
		25		3.7 (0.38)	9.0	12.5		13.8		15.0	
		30		3.0 (0.31)	10.5	15.0		16.5		18.0	
		35		2.6 (0.27)	12.0	17.5		19.3		21.0	
		40		2.3 (0.24)	13.4	20.0		22.0		24.0	
		45		2.0 (0.21)	14.8	22.5		24.8		27.0	
		50		1.8 (0.19)	16.2	25.0		27.5		30.0	
		55		1.7 (0.17)	17.7	27.5		30.3		33.0	
		60		1.5 (0.16)	19.1	30.0		33.0		36.0	
		65		1.4 (0.14)	20.6	32.5		35.8		39.0	
		70		1.3 (0.13)	22.0	35.0		38.5		42.0	
		75		1.2 (0.13)	23.4	37.5		41.3		45.0	
		80		1.1 (0.12)	24.9	40.0		44.0		48.0	
90	1.0 (0.10)	27.8	45.0	49.5	54.0						
SIMC	12	20	7.4	5.4 (0.55)	7.0	10.0	54 (5.5)	11.0	59 (6.0)	12.0	64 (6.5)
		25		4.3 (0.44)	8.0	12.5		13.8		15.0	
		30		3.6 (0.37)	10.0	15.0		16.5		18.0	
		35		3.1 (0.31)	12.0	17.5		19.3		21.0	
		40		2.7 (0.28)	14.0	20.0		22.0		24.0	
		45		2.4 (0.24)	15.0	22.5		24.8		27.0	
		50		2.2 (0.22)	16.0	25.0		27.5		30.0	
		55		2.0 (0.20)	17.0	27.5		30.3		33.0	
		60		1.8 (0.18)	18.0	30.0		33.0		36.0	
		65		1.7 (0.17)	20.0	32.5		35.8		39.0	
		70		1.5 (0.16)	21.0	35.0		38.5		42.0	
		75		1.4 (0.15)	22.0	37.5		41.3		45.0	
		80		1.3 (0.14)	24.0	40.0		44.0		48.0	
		90		1.2 (0.12)	27.0	45.0		49.5		54.0	

Code No.			Cycle life			1 million		0.5 million		0.3 million	
Code No.			Inner Dia. (mm)	Spring rate Kgf/mm	Soild height (mm)	F=Lx50%		F=Lx55%		F=Lx60%	
Code	Outer Dia. (mm)	Free length (mm)				Max compression F(mm)	Load (kgf)	Max compression F(mm)	Load (kgf)	Max compression F(mm)	Load (kgf)
SIMC	14	25	8.5	7.8 (0.80)	10.5	12.5	103 (10.5)	13.8	113 (11.5)	15.0	122 (12.5)
		30		6.5 (0.67)	11.0	15.0		16.5		18.0	
		35		5.6 (0.57)	13.0	17.5		19.3		21.0	
		40		4.9 (0.50)	15.0	20.0		22.0		24.0	
		45		4.4 (0.44)	16.7	22.5		24.8		27.0	
		50		3.9 (0.40)	18.0	25.0		27.5		30.0	
		55		3.6 (0.36)	20.0	27.5		30.3		33.0	
		60		3.3 (0.33)	21.5	30.0		33.0		36.0	
		65		3.0 (0.31)	23.0	32.5		35.8		39.0	
		70		2.8 (0.29)	24.6	35.0		38.5		42.0	
		75		2.6 (0.27)	26.2	37.5		41.3		45.0	
		80		2.4 (0.25)	28.0	40.0		44.0		48.0	
		90		2.2 (0.22)	31.0	45.0		49.5		54.0	
		100		2.2 (0.20)	34.0	50.0		55.0		60.0	
SIMC	16	25	9.5	6.1 (0.63)	10.0	12.5	113 (11.5)	13.8	124 (12.7)	15.0	137 (14.0)
		30		4.6 (0.47)	11.0	15.0		16.5		18.0	
		35		3.7 (0.38)	12.5	17.5		19.3		21.0	
		40		3.0 (0.31)	13.9	20.0		22.0		24.0	
		45		2.6 (0.27)	15.3	22.5		24.8		27.0	
		50		2.3 (0.24)	16.7	25.0		27.5		30.0	
		55		2.0 (0.21)	18.0	27.5		30.3		33.0	
		60		1.8 (0.19)	19.4	30.0		33.0		36.0	
		65		1.7 (0.17)	20.8	32.5		35.8		39.0	
		70		1.5 (0.16)	22.2	35.0		38.5		42.0	
		75		1.4 (0.14)	23.6	37.5		41.3		45.0	
		80		1.3 (0.13)	25.0	40.0		44.0		48.0	
		90		1.2 (0.13)	27.8	45.0		49.5		54.0	
		100		1.1 (0.12)	30.5	50.0		55.0		60.0	
125	1.0 (0.10)	37.5	62.5	68.8	75.0						

			Cycle life			1 million		0.5 million		0.3 million	
Code No.			Inner Dia. (mm)	Spring rate Kgf/mm	Soild height (mm)	F=Lx50%		F=Lx55%		F=Lx60%	
Code	Outer Dia. (mm)	Free length (mm)				Max compression F(mm)	Load (kgf)	Max compression F(mm)	Load (kgf)	Max compression F(mm)	Load (kgf)
SIMC	18	25	11	10.6 (1.08)	9.0	12.5	132 (13.5)	13.8	144 (14.7)	15.0	157 (16.0)
		30		8.8 (0.90)	10.3	15.0		16.5		18.0	
		35		7.5 (0.77)	11.5	17.5		19.3		21.0	
		40		6.6 (0.68)	12.7	20.0		22.0		24.0	
		45		5.9 (0.60)	14.0	22.5		24.8		27.0	
		50		5.3 (0.54)	15.5	25.0		27.5		30.0	
		55		4.8 (0.49)	16.5	27.5		30.3		33.0	
		60		4.4 (0.45)	18.0	30.0		33.0		36.0	
		65		4.1 (0.42)	19.0	32.5		35.8		39.0	
		70		3.8 (0.39)	20.5	35.0		38.5		42.0	
		75		3.5 (0.36)	22.0	37.5		41.3		45.0	
		80		3.3 (0.34)	23.0	40.0		44.0		48.0	
		90		2.9 (0.30)	25.5	45.0		49.5		54.0	
		100		2.6 (0.27)	29.0	50.0		55.0		60.0	
125	2.1 (0.22)	35.0	62.5	68.8	75.0						
SIMC	20	25	12.5	14.1 (1.44)	9.0	12.5	176 (18.0)	13.8	196 (20.0)	15.0	216 (22.0)
		30		11.7 (1.20)	11.0	15.0		16.5		18.0	
		35		10.1 (1.03)	12.5	17.5		19.3		21.0	
		40		8.8 (0.90)	14.0	20.0		22.0		24.0	
		45		7.8 (0.80)	15.0	22.5		24.8		27.0	
		50		7.0 (0.72)	16.5	25.0		27.5		30.0	
		55		6.4 (0.65)	18.0	27.5		30.3		33.0	
		60		5.9 (0.60)	19.2	30.0		33.0		36.0	
		65		5.4 (0.55)	20.5	32.5		35.8		39.0	
		70		5.0 (0.51)	21.7	35.0		38.5		42.0	
		75		4.7 (0.48)	23.0	37.5		41.3		45.0	
		80		4.4 (0.45)	24.2	40.0		44.0		48.0	
		90		3.9 (0.40)	27.0	45.0		49.5		54.0	
		100		3.5 (0.36)	30.0	50.0		55.0		60.0	
125	2.8 (0.29)	37.0	62.5	68.8	75.0						
150	2.3 (0.24)	44.0	75.0	82.5	90.0						

			Cycle life			1 million		0.5 million		0.3 million	
Code No.			Inner Dia. (mm)	Spring rate Kgf/mm	Soild height (mm)	F=Lx50%		F=Lx55%		F=Lx60%	
Code	Outer Dia. (mm)	Free length (mm)				Max compression F(mm)	Load (kgf)	Max compression F(mm)	Load (kgf)	Max compression F(mm)	Load (kgf)
SIMC	22	25	13.5	19.6 (2.00)	10.0	12.5	245 (25.0)	13.8	269 (27.5)	15.0	294 (30.0)
		30		16.3 (1.67)	11.0	15.0		16.5		18.0	
		35		14.0 (1.43)	12.0	17.5		19.3		21.0	
		40		12.3 (1.25)	14.0	20.0		22.0		24.0	
		45		10.9 (1.11)	16.0	22.5		24.8		27.0	
		50		9.8 (1.00)	18.0	25.0		27.5		30.0	
		55		8.9 (0.91)	20.0	27.5		30.3		33.0	
		60		8.2 (0.83)	22.0	30.0		33.0		36.0	
		65		7.5 (0.77)	24.0	32.5		35.8		39.0	
		70		7.0 (0.71)	26.0	35.0		38.5		42.0	
		75		6.5 (0.67)	27.0	37.5		41.3		45.0	
		80		6.1 (0.63)	29.0	40.0		44.0		48.0	
		90		5.4 (0.56)	32.0	45.0		49.5		54.0	
		100		4.9 (0.50)	35.0	50.0		55.0		60.0	
		125		3.9 (0.40)	42.0	62.5		68.8		75.0	
150	3.3 (0.33)	50.0	75.0	82.5	90.0						
SIMC	25	25	16	24.3 (2.48)	9.0	12.5	304 (31.0)	13.8	333 (34.0)	15.0	363 (37.0)
		30		20.3 (2.07)	10.5	15.0		16.5		18.0	
		35		17.4 (1.77)	12.7	17.5		19.3		21.0	
		40		15.2 (1.55)	14.6	20.0		22.0		24.0	
		45		13.5 (1.38)	16.6	22.5		24.8		27.0	
		50		12.2 (1.24)	18.0	25.0		27.5		30.0	
		55		11.1 (1.13)	20.0	27.5		30.3		33.0	
		60		10.1 (1.03)	21.3	30.0		33.0		36.0	
		65		9.4 (0.95)	22.5	32.5		35.8		39.0	
		70		8.7 (0.89)	24.0	35.0		38.5		42.0	
		75		8.1 (0.83)	25.3	37.5		41.3		45.0	
		80		7.6 (0.78)	26.7	40.0		44.0		48.0	
		90		6.7 (0.69)	29.5	45.0		49.5		54.0	
		100		6.1 (0.62)	32.2	50.0		55.0		60.0	
		125		4.9 (0.50)	39.0	62.5		68.8		75.0	
150	4.0 (0.41)	45.8	75.0	82.5	90.0						
175	3.4 (0.35)	52.6	87.5	96.3	105.0						
200	3.0 (0.31)	59.5	100.0	110.0	120.0						

			Cycle life			1 million		0.5 million		0.3 million	
Code No.			Inner Dia. (mm)	Spring rate Kgf/mm	Soild height (mm)	F=Lx50%		F=Lx55%		F=Lx60%	
Code	Outer Dia. (mm)	Free length (mm)				Max compression F(mm)	Load (kgf)	Max compression F(mm)	Load (kgf)	Max compression F(mm)	Load (kgf)
SIMC	27	25	17.5	28.2 (2.88)	9.0	12.5	353 (36.0)	13.8	392 (40.0)	15.0	421 (43.0)
		30		23.5 (2.40)	11.0	15.0		16.5		18.0	
		35		20.2 (2.06)	13.0	17.5		19.3		21.0	
		40		17.7 (1.80)	14.5	20.0		22.0		24.0	
		45		15.7 (1.60)	17.0	22.5		24.8		27.0	
		50		14.1 (1.44)	18.5	25.0		27.5		30.0	
		55		12.8 (1.31)	20.0	27.5		30.3		33.0	
		60		11.8 (1.20)	22.0	30.0		33.0		36.0	
		65		10.9 (1.11)	23.5	32.5		35.8		39.0	
		70		10.1 (1.03)	25.0	35.0		38.5		42.0	
		75		9.4 (0.96)	26.3	37.5		41.3		45.0	
		80		8.8 (0.90)	28.0	40.0		44.0		48.0	
		90		7.8 (0.80)	30.5	45.0		49.5		54.0	
		100		7.1 (0.72)	33.5	50.0		55.0		60.0	
		125		5.7 (0.58)	40.5	62.5		68.8		75.0	
		150		4.7 (0.48)	48.0	75.0		82.5		90.0	
		175		4.0 (0.41)	55.0	87.5		96.3		105.0	
200	3.5 (0.36)	62.0	100.0	110.0	120.0						
SIMC	30	25	20	31.4 (3.20)	9.5	12.5	392 (40.0)	13.8	431 (44.0)	15.0	470 (48.0)
		30		26.1 (2.67)	11.0	15.0		16.5		18.0	
		35		22.4 (2.29)	13.0	17.5		19.3		21.0	
		40		19.6 (2.00)	14.5	20.0		22.0		24.0	
		45		17.4 (1.78)	16.5	22.5		24.8		27.0	
		50		15.7 (1.60)	18.0	25.0		27.5		30.0	
		55		14.3 (1.45)	19.5	27.5		30.3		33.0	
		60		13.1 (1.33)	20.8	30.0		33.0		36.0	
		65		12.1 (1.23)	22.0	32.5		35.8		39.0	
		70		11.2 (1.14)	23.3	35.0		38.5		42.0	
		75		10.5 (1.07)	24.5	37.5		41.3		45.0	
		80		9.8 (1.00)	25.8	40.0		44.0		48.0	
		90		8.7 (0.89)	28.3	45.0		49.5		54.0	
		100		7.8 (0.80)	30.8	50.0		55.0		60.0	
		125		6.3 (0.64)	37.0	62.5		68.8		75.0	
		150		5.2 (0.53)	43.5	75.0		82.5		90.0	
		175		4.5 (0.46)	50.0	87.5		96.3		105.0	
200	3.9 (0.40)	57.0	100.0	110.0	120.0						