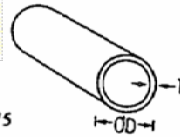


Standard Urethane Tubes, Color: Natural

Standard Compounds MP600, MP750, MP801, MP850, MP900, MP950, MP175



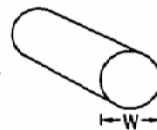
Outside Diameter	Inside Diameter	Length
1-3/4"	1/2"	36"
1-3/4"	5/8"	36"
1-3/4"	7/8"	36"
1-3/4"	1"	36"
2"	1/2"	36"
2"	5/8"	36"
2"	3/4"	36"
2"	1"	36"
2"	1-1/4"	36"
2"	1-1/2"	36"
2"	7/8"	36"
2-1/4"	1"	36"
2-1/4"	1-1/4"	36"
2-1/4"	1-3/4"	36"
2-1/2"	1/2"	36"
2-1/2"	1"	36"
2-1/2"	1-1/4"	36"
2-1/2"	1-1/2"	36"
2-1/2"	1-3/4"	36"
2-1/2"	2"	36"
2-3/4"	5/8"	36"
2-3/4"	1-1/4"	36"
2-3/4"	1-1/2"	36"
2-3/4"	1-3/4"	36"
2-3/4"	2-1/2"	36"
3"	1/2"	36"
3"	1"	36"
3"	1-1/2"	36"
3"	2"	36"
3"	2-1/4"	36"
3"	2-1/2"	36"
3-1/4"	1"	36"
3-1/4"	1-1/2"	36"
3-1/4"	2-1/4"	36"

Outside Diameter	Inside Diameter	Length
3-1/2"	1"	36"
3-1/2"	1-1/4"	36"
3-1/2"	2"	36"
3-1/2"	2-1/2"	36"
3-1/2"	2-3/4"	36"
3-1/2"	3"	36"
3-3/4"	2-3/4"	36"
3-3/4"	3-1/2"	36"
4"	1"	36"
4"	1-1/4"	36"
4"	2"	36"
4"	2-1/4"	36"
4"	2-3/4"	36"
4"	3"	36"
4"	3-1/2"	36"
4-1/4"	1-1/2"	36"
4-1/4"	2-3/4"	36"
4-1/4"	3"	36"
4-1/2"	1"	36"
4-1/2"	2-1/2"	36"
4-1/2"	2-3/4"	36"
4-1/2"	3-1/2"	36"
4-1/2"	4"	36"
4-3/4"	1-3/4"	36"
4-3/4"	3"	36"
5"	1-1/2"	36"
5"	2-1/4"	36"
5"	3"	36"
5"	3-1/2"	36"
5"	4"	36"
5-1/4"	4-1/2"	36"
5-1/2"	2-1/4"	36"
5-1/2"	3"	36"
6"	1"	36"
6"	5"	36"

All tubes are made to order & available in all Standard Durometers & colors. Delivery based on durometer, color, & quantity ordered.

Standard Urethane Rod, Color: Natural

Standard Compounds MP600, MP750, MP850, MP950, MP175



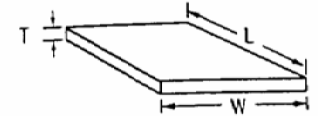
Diameter	Length
1/4"	-
3/8"	-
1/2"	-
5/8"	-
3/4"	-
7/8"	-
1"	-
1-1/8"	-
1-1/4"	12"
1-3/8"	-
1-1/2"	12"
1-5/8"	-
1-3/4"	12"
1-7/8"	-
2"	12"
2-1/4"	12"
2-1/2"	12"
2-3/4"	12"
3"	12"

Diameter	Length
1/4"	-
3/8"	-
1/2"	-
5/8"	-
3/4"	-
7/8"	-
1"	-
1-1/8"	-
1-1/4"	24"
1-3/8"	-
1-1/2"	24"
1-5/8"	-
1-3/4"	24"
1-7/8"	-
2"	24"
2-1/4"	24"
2-1/2"	24"
2-3/4"	24"
3"	24"

Diameter	Length
1/4"	36"
3/8"	36"
1/2"	36"
5/8"	36"
3/4"	36"
7/8"	36"
1"	36"
1-1/8"	36"
1-1/4"	36"
1-3/8"	36"
1-1/2"	36"
1-5/8"	36"
1-3/4"	36"
1-7/8"	36"
2"	36"
2-1/4"	36"
2-1/2"	36"
2-3/4"	36"
3"	36"

Standard Urethane Sheet, Color: Natural

Standard Compounds MP600, MP750, MP850, MP950, MP175



Thickness	Width	Length
1/32"	-	-
1/16"	-	-
1/8"	12	12
3/16"	12	12
1/4"	12	12
3/8"	12	12
1/2"	12	12
5/8"	-	-
3/4"	12	12
1"	12	12

Thickness	Width	Length
1/32"	-	-
1/16"	-	-
1/8"	12	24
3/16"	12	24
1/4"	12	24
3/8"	12	24
1/2"	12	24
5/8"	-	-
3/4"	12	24
1"	12	24

Thickness	Width	Length
1/32"	-	-
1/16"	24	24
1/8"	24	24
3/16"	24	24
1/4"	24	24
3/8"	24	24
1/2"	24	24
5/8"	24	24
3/4"	24	24
1"	24	24

Thickness	Width	Length
1/32"	-	-
1/16"	-	-
1/8"	12	48
3/16"	12	48
1/4"	12	48
3/8"	12	48
1/2"	12	48
5/8"	12	48
3/4"	12	48
1"	12	48

Thickness	Width	Length
1/32"	-	-
1/16"	24	48
1/8"	24	48
3/16"	24	48
1/4"	24	48
3/8"	24	48
1/2"	24	48
5/8"	24	48
3/4"	24	48
1"	24	48

Thickness	Width	Length
1/32"	48	48
1/16"	48	48
1/8"	48	48
3/16"	48	48
1/4"	48	48
3/8"	48	48
1/2"	48	48
5/8"	48	48
3/4"	48	48
1"	48	48

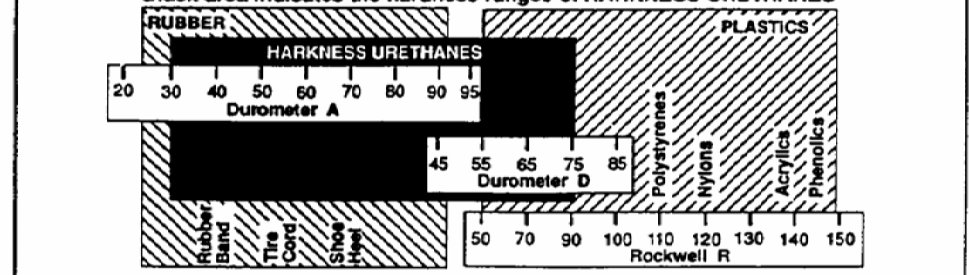
Standard Durometers Available

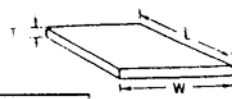
Compound	Base	Duro	Tolerance
MP600	Ester	60 Shore A	+/- 5
MP750	Ester	75 Shore A	+/- 5
MP850	Ester	85 Shore A	+/- 5
MP950	Ether	95 Shore A	+/- 5
MP175	Ether	75 Shore D	+/- 5

Tolerance on Thickness

Thickness	Tolerance
1/32" thru 3/16"	+/- .010
1/4" thru 3/8"	+/- .015
1/2" thru 1-1/4"	+/- .025
1-1/2" and above	+/- 2%

Black area indicates the hardness ranges of HARKNESS URETHANES





Standard Urethane Spring Cylinders

Outside Diameter	Inside Diameter	Free length	1/8" Deflection
7/8"	1/4"	1"	425
7/8"	1/4"	1-1/4"	325
7/8"	1/4"	1-1/2"	275
7/8"	1/4"	1-3/4"	250
7/8"	1/4"	2"	210
7/8"	1/4"	2-3/4"	150
7/8"	1/4"	4"	110
7/8"	1/4"	6"	70
7/8"	1/4"	12-1/2"	-

Outside Diameter	Inside Diameter	Free length	1/8" Deflection
1"	3/8"	1"	525
1"	3/8"	1-1/4"	425
1"	3/8"	1-1/2"	325
1"	3/8"	1-3/4"	295
1"	3/8"	2"	250
1"	3/8"	2-3/4"	170
1"	3/8"	4"	125
1"	3/8"	6"	90
1"	3/8"	12-1/2"	-

Outside Diameter	Inside Diameter	Free length	1/8" Deflection
1-1/8"	1/2"	1"	600
1-1/8"	1/2"	1-1/4"	475
1-1/8"	1/2"	1-1/2"	380
1-1/8"	1/2"	1-3/4"	315
1-1/8"	1/2"	2"	275
1-1/8"	1/2"	2-3/4"	220
1-1/8"	1/2"	4"	150
1-1/8"	1/2"	6"	100
1-1/8"	1/2"	12-1/2"	-

Outside Diameter	Inside Diameter	Free length	1/8" Deflection
1-1/4"	5/8"	1"	700
1-1/4"	5/8"	1-1/4"	525
1-1/4"	5/8"	1-1/2"	380
1-1/4"	5/8"	1-3/4"	315
1-1/4"	5/8"	2"	325
1-1/4"	5/8"	2-3/4"	250
1-1/4"	5/8"	4"	175
1-1/4"	5/8"	6"	120
1-1/4"	5/8"	12-1/2"	-

Outside Diameter	Inside Diameter	Free length	1/8" Deflection
1-1/2"	3/4"	1"	1100
1-1/2"	3/4"	1-1/4"	875
1-1/2"	3/4"	1-1/2"	725
1-1/2"	3/4"	1-3/4"	620
1-1/2"	3/4"	2"	525
1-1/2"	3/4"	2-3/4"	375
1-1/2"	3/4"	4"	275
1-1/2"	3/4"	6"	180
1-1/2"	3/4"	12-1/2"	-

Outside Diameter	Inside Diameter	Free length	1/8" Deflection
2"	1"	1"	1950
2"	1"	1-1/4"	1550
2"	1"	1-1/2"	1080
2"	1"	1-3/4"	875
2"	1"	2"	850
2"	1"	2-3/4"	625
2"	1"	4"	380
2"	1"	6"	300
2"	1"	12-1/2"	-

Urethane springs are designed for use in applications where corrosion, vibration, and magnetism prevent the use of a conventional steel spring

Typical applications include vibration dampening, corrosive environment, high loads in confined spaces, cycle and static loading and nonmagnetic requirements

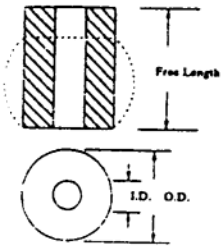
* Color Black * Durometer 95 Shore A

* Tensile Strength: 5000 psi

* Temperature Range: - 40 to 180 F

Benefits of Urethane Springs

- Water & Oil Resistance
- Bondable to mating Parts
- Longer Tool Life
- Nonmagnetic
- Has Memory



Standard Urethane Sheet, Color: Black

Standard Compounds MP801- 80A, MP900 - 90A, MP950 - 95A, MP175 - 75D

The following is offered in Black color only in above specified diameters

Thickness	Width	Length
1/16"	12	12
1/8"	12	12
3/16"	12	12
1/4"	12	12
3/8"	12	12
1/2"	12	12
3/4"	12	12
1"	12	12

Thickness	Width	Length
1/16"	12	24
1/8"	12	24
3/16"	12	24
1/4"	12	24
3/8"	12	24
1/2"	12	24
3/4"	12	24
1"	12	24

Thickness	Tolerance
1/16" thru 3/16"	+/- .010
1/4" thru 3/8"	+/- .015
1/2" thru 1"	+/- .025

Thickness	Width	Length
1/16"	12	48
1/8"	12	48
3/16"	12	48
1/4"	12	48
3/8"	12	48
1/2"	12	48
3/4"	12	48
1"	12	48

Thickness	Width	Length
1/16"	24	48
1/8"	24	48
3/16"	24	48
1/4"	24	48
3/8"	24	48
1/2"	24	48
3/4"	24	48
1"	24	48

Thickness	Width	Length
1/16"	24	24
1/8"	24	24
3/16"	24	24
1/4"	24	24
3/8"	24	24
1/2"	24	24
3/4"	24	24
1"	24	24

Thickness	Width	Length
1/16"	48	48
1/8"	48	48
3/16"	48	48
1/4"	48	48
3/8"	48	48
1/2"	48	48
3/4"	48	48
1"	48	48

Standard Urethane Rod, Color: Black

Standard Compounds MP801- 80A, MP900 - 90A, MP950 - 95A, MP175 - 75D

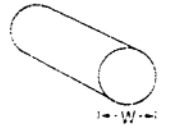
The following is offered in Black color only in above specified diameters

Diameter	Length
1/4"	12"
3/8"	12"
1/2"	12"
5/8"	12"
3/4"	12"
7/8"	12"
1"	12"
1-1/8"	12"
1-1/4"	12"
1-1/2"	12"
1-3/4"	12"
2"	12"
2-1/4"	12"
2-1/2"	12"
2-3/4"	12"
3"	12"

Diameter	Length
1/4"	24"
3/8"	24"
1/2"	24"
5/8"	24"
3/4"	24"
7/8"	24"
1"	24"
1-1/8"	24"
1-1/4"	24"
1-1/2"	24"
1-3/4"	24"
2"	24"
2-1/4"	24"
2-1/2"	24"
2-3/4"	24"
3"	24"

Diameter	Length
1/4"	36"
3/8"	36"
1/2"	36"
5/8"	36"
3/4"	36"
7/8"	36"
1"	36"
1-1/8"	36"
1-1/4"	36"
1-1/2"	36"
1-3/4"	36"
2"	36"
2-1/4"	36"
2-1/2"	36"
2-3/4"	36"
3"	36"

Diameter	Length
1/4"	48"
3/8"	48"
1/2"	48"
5/8"	48"
3/4"	48"
7/8"	48"
1"	48"
1-1/8"	48"
1-1/4"	48"
1-1/2"	48"
1-3/4"	48"
2"	48"
2-1/4"	48"
2-1/2"	48"
2-3/4"	48"
3"	48"



Standard Urethane Bar, Color: Black

Standard Compounds MP801- 80A, MP900 - 90A, MP950 - 95A, MP175 - 75D

Bar Size	Lengths Available			
	12"	24"	36"	48"
3/4" x 3/4"	12"	24"	36"	48"
1" x 1"	12"	24"	36"	48"
1-1/2" x 1-1/2"	12"	24"	36"	48"
2" x 2"	12"	24"	36"	48"
3" x 3"	12"	24"	36"	48"

Bar Tolerance	
3/4" x 3/4"	+/- .015
1" x 1"	+/- .025
1-1/2" x 1-1/2"	+/- .075
2" x 2"	+/- .075

