PACIFIC AMERICAN COMPANY
A Division of MICROFIBER TECHNOLOGY CORPORATION, LLC - U.S.A.

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EAFM • ELASTOMERIC • ACOUSTICAL • FLOOR • MOUNTINGS for FLOATING FLOORS and OTHER SUITABLE APPLICATIONS

In 1976 the acoustical community asked us to develop a floating floor mounting that would last as long as the building and provide response frequencies lower than two inch (50mm) thick fiberglass.

We were pleased to find that Neoprene molded in exact accordance with DuPont formulations had addressed the life expectancy requirement as bridge supports. Outdoor applications are far more severe than within a building because of the temperature extremes, sunlight, rain, snow and ice.

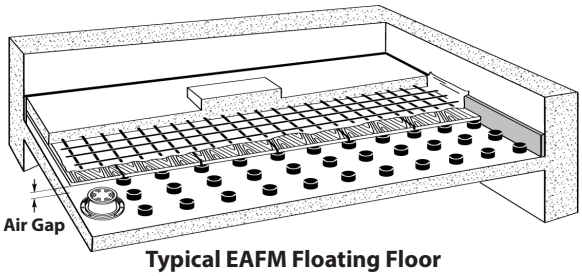
We continued with Neoprene until 2006 when we developed Natural Rubber Compounds with the same life expectancy but much lower dynamic stiffness. These compounds are referred to as LDS. Frequencies in 2 inch (50mm) thickness are now 7 – 8 Hz compared to fiberglass @ 15 Hz. It is hard to understand why fiberglass is still acceptable. Please refer to Bulletin ACS-102-3, page 6 for a complete discussion.

In bridge and overpass work there is a need for very high loadings with pressures as high as 2000 lbs/square inch. If strain is limited to 10 to 15 percent of the pad thickness, both creep and permanent set are very acceptable. Since we started by supporting floating floor areas of 1 square foot (0.1 square meters), our initial problem was to design a stable rubber column that would deflect 0.2 to 0.3 inches (5mm to 8mm) under minor loadings. A mounting thickness of 2 inches (50mm) at 10 to 15% deflection (strain) met the deflection criteria. A 2 inch (50mm) diameter reduced the shape factor (SF= Loaded Area/Perimeter Area) to achieve the low capacities of the EAFM-8823 on page 3.

All of the other sizes were gradually designed and tooled to raise or lower both capacities and frequencies.

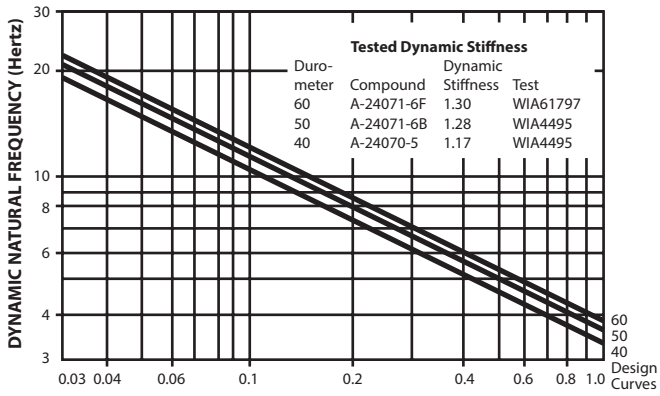
In response to the wishes and specifications of Acousticians and Architects we a most always manufacture these products in Bridge Bearing Natural Rubber and tool for other sizes and thicknesses. We still supply Neoprene but only on special order.

This arsenal of available sizes encouraged other applications. Standard designs and variations are used as drop hammer shock absorbers, subway, railroad, building, pump and transformer isolators. We design and fabricate to virtually all requirements, including squares andrectangles with bonded embedded plates to increase shape factors.



Typical EAFM Floating Floor

MICROFIBER LOW DYNAMIC STIFFNESS (LDS) BRIDGE BEARING COMPOUNDS
DYNAMIC NATURAL FREQUENCY/DEFLECTION CHART



AASHTO Bridge Bearing Specifications for Polyisoprene

ORIGINAL PHYSICAL PROPERTIES Test: ASTM D-2240 & D-412			TESTED FOR AGING OVEN AGING (70hrs/158˚F) ASTM D-573			OZONE ASTM D-1149	COMPRESSION SET ASTM D-395	LONG TERM CREEP
Durometer Shore A	Tensie Strength (min)	Elongat. at Break (min)	Hardness (max)	Tensile Strength (max)	Elongat at Break (max)	25 pphm in air by Vol. 20% Strain 100˚F	ISO8013 22 hrs/158˚F Method B	168 hrs
40±5*	2000 psi	500%	+10%	-25%	-25%	No Cracks	25% (max)	5% (max)
50±5	2250 psi	500%	+10%	-25%	-25%	No Cracks	25% (max)	5% (max)
60±5	2250 psi	500%	+10%	-25%	-25%	No Cracks	25% (max)	5% (max)
70±5	2250 psi	500%	+10%	-25%	-25%	No Cracks	25% (max)	5% (max)

*AASHTO does not spec 40 Duro. 40 Duro by Microfiber.

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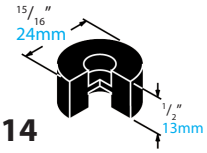
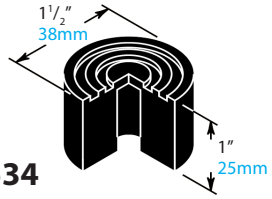
1/2" – 1" 13 – 25mm Height



EAFM 16114

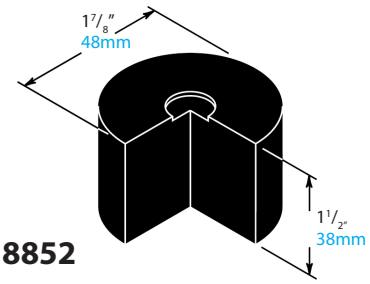


EAFM 6534

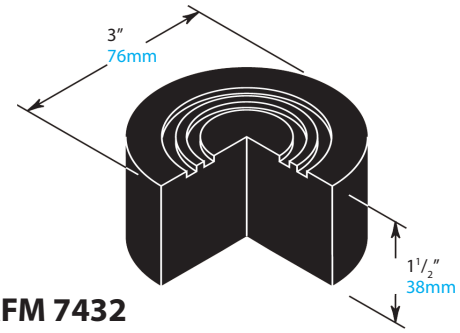
EAFM Designation & Color		Durometer ±5	0.025" 0.6mm Deflection Loading lbs.	kgs.	Frequency Hz l	0.050" 1.3mm Deflection Loading bs.	kgs.	Frequency Hz	0.075" 1.9mm Deflection 3X Maximum Loading lbs.	kgs.	Frequency Hz	Temporary Overload* Loading lbs.	kgs.
	Green	40	17	8	21.4	33	15	15.1	50	23	12.4	150	68
16114	Red	50	25	11	22.4	50	23	17.8	75	34	12.9	225	102
	White	60	37	17	22.5	73	33	16.0	110	50	13.0	330	150
			0.05" 1.3mm Deflection Loading lbs.	kgs.	Frequency Hz	0.1" 2.5mm Deflection Loading lbs.	kgs.	Frequency Hz	0.15" 3.8mm Deflection Loading lbs.	kgs.	Frequency Hz		
	Black	30	17	8	14.7	33	15	10.4	50	23	8.5	150	68
6534	Green	40	30	14	15.1	60	27	10.7	90	41	8.7	270	122
	Red	50	47	21	15.8	93	42	11.2	140	64	9.1	420	191
	White	60	70	32	16.0	140	64	11.3	210	95	9.2	630	286

*Temporary overload is often mentioned in specifications. We have tested mountings compressed to 50% of their initial thickness. After release there was no permanent set or damage.

1 1/2" 38mm Height



EAFM 8852



EAFM 7432

EAFM Designation & Color		Durometer ±5	0.075" 1.9mm Deflection Loading lbs.	kgs.	Frequency Hz	0.150" 3.8mm Deflection Loading lbs.	kgs.	Frequency Hz	0.225" 5.7mm Deflection 3X Maximum Loading lbs.	kgs.	Frequency Hz	Temporary Overload* Loading lbs.	kgs.
	Green	40	50	23	12.4	100	45	8.7	150	68	7.1	450	205
8852	Red	50	73	33	12.9	145	66	9.1	220	100	7.5	660	300
	White	60	113	51	13.0	225	102	9.2	340	155	7.6	1020	465
	Green	40	93	42	12.4	185	84	8.7	280	127	7.1	840	380
7432	Red	50	139	63	12.9	277	126	9.1	420	191	7.5	1260	570
	White	60	208	95	13.0	416	189	9.2	630	286	7.6	1890	860

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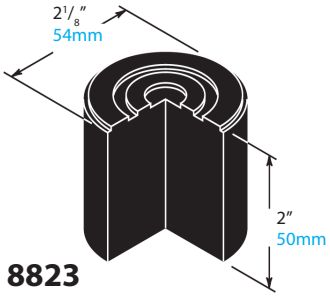
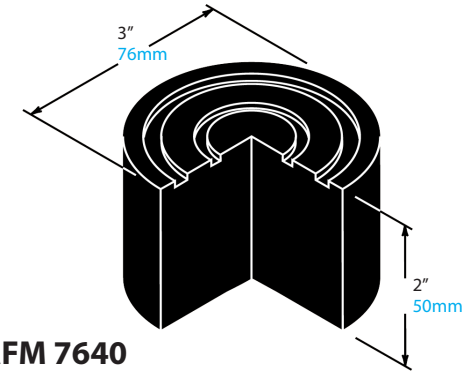
2" 50mm Height



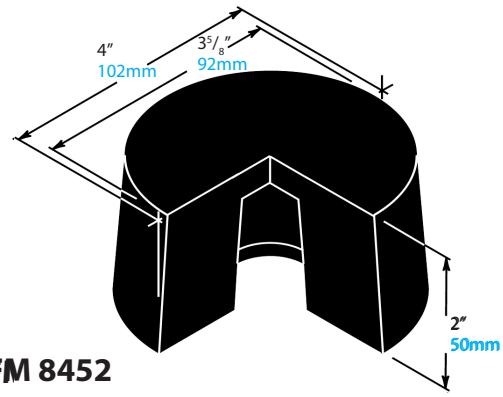
EAFM 8823



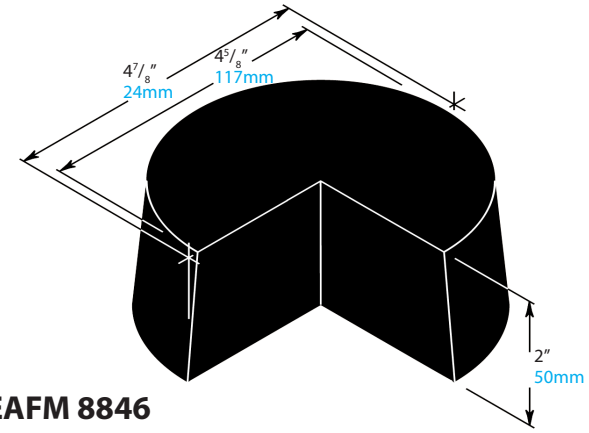
EAFM 7640

EAFM Designation & Color		Durometer ±5	0.1" 2.5mm Deflection Loading lbs.	kgs.	Frequency Hz	0.2" 5.1mm Deflection Loading lbs.	kgs.	Frequency Hz	0.3" 7.6mm Deflection 3X Maximum Loading lbs.	kgs.	Frequency Hz	Temporary Overload* Loading lbs.	kgs.
	Green	40	48	22	10.7	97	44	7.6	145	66	6.2	435	197
8823	Red	50	80	36	11.2	160	73	7.9	240	109	6.4	720	327
	White	60	120	54	11.3	240	109	8.0	360	163	6.5	1080	490
	Green	40	140	64	10.7	280	127	7.6	420	191	6.2	1260	572
7640	Red	50	200	92	11.2	400	181	7.9	600	272	6.4	1800	816
	White	60	300	136	11.3	600	273	8.0	900	409	6.5	2700	1225

*Temporary overload is often mentioned in specifications. We have tested mountings compressed to 50% of their initial thickness. After release there was no permanent set or damage.



EAFM 8452



EAFM 8846

EAFM Designation & Color		Durometer ±5	0.1" 2.5mm Deflection Loading lbs.	kgs.	Frequency Hz	0.2" 5.1mm Deflection Loading lbs.	kgs.	Frequency Hz	0.3" 7.6mm Deflection 3X Maximum Loading lbs.	kgs.	Frequency Hz	Temporary Overload* Loading lbs.	kgs.
	Green	40	167	76	10.7	333	151	7.6	500	227	6.2	1500	681
8452	Red	50	256	116	11.2	513	233	7.9	770	350	6.4	2310	1050
	White	60	400	182	11.3	800	364	8.0	1200	545	6.5	3600	1636
8846	Red	50	600	273	11.2	1200	545	7.9	1800	818	6.4	5400	2454
	White	60	900	409	11.3	1800	817	8.0	2700	1227	6.5	8100	3681

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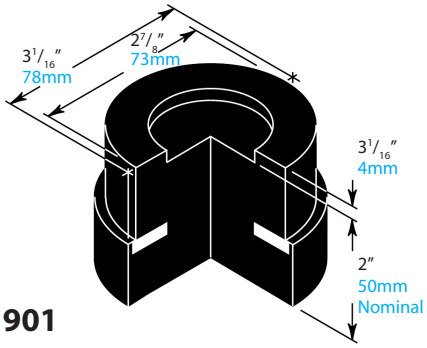
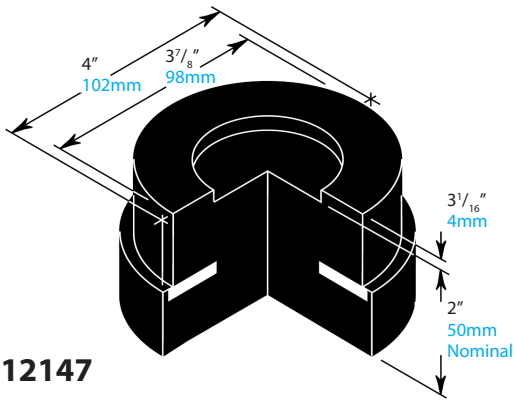
2" 50mm Nominal Height



EAFM 11901

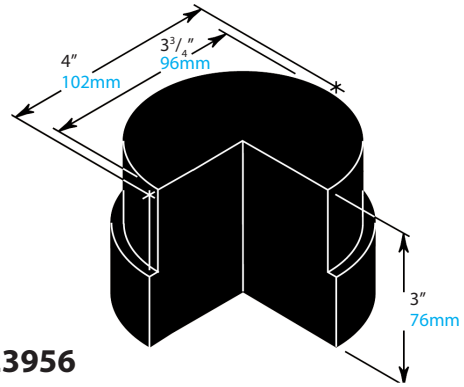


EAFM 12147

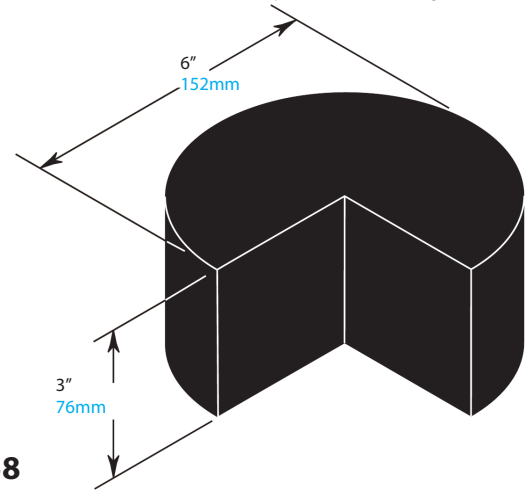
EAFM Designation & Color		Durometer ±5	0.1" 2.5mm Deflection Loading lbs.	kgs.	Frequency Hz	0.2" 5.1mm Deflection Loading lbs.	kgs.	Frequency Hz	0.3" 7.6mm Deflection 3X Maximum Loading lbs.	kgs.	Frequency Hz	Temporary Overload* Loading lbs.	kgs.
11901	Red	50	368	167	11.2	735	333	7.9	1100	499	6.4	3300	1497
	White	60	520	236	11.3	1040	472	8.0	1550	703	6.5	4650	2109
12147	Red	50	667	303	11.2	1335	606	7.9	2000	907	6.4	6000	2722
	White	60	1075	488	11.3	2150	975	8.0	3200	1451	6.5 9	600	4354

*Temporary overload is often mentioned in specifications. We have tested mountings compressed to 50% of their initial thickness. After release there was no permanent set or damage.

3" 76mm Height



EAFM 23956



EAFM 26058

EAFM Designation & Color		Durometer ±5	0.15" 3.8mm Deflection Loading lbs.	kgs.	Frequency Hz	0.3" 7.6mm Deflection Loading lbs.	kgs.	Frequency Hz	0.45" 11.4mm Deflection 3X Maximum Loading lbs.	kgs.	Frequency Hz	Temporary Overload* Loading lbs.	kgs.
	Green	40	230	105	8.7	460	210	6.2	700	320	5.0	2100	960
23956	Red	50	365	166	9.1	730	332	6.4	1100	500	5.2	3300	1500
	White	60	500	227	9.2	1000	454	6.5	1500	680	5.3	4500	2040
	Green	40	270	125	8.7	540	250	6.2	810	375	5.0	2430	1125
26058	Red	50	750	340	9.1	1500	680	6.4	2250	1020	5.2	6750	3060
	White	60	950	430	9.2	1900	860	6.5	2850	1290	5.3	8560	3870

*Temporary overload is often mentioned in specifications. We have tested mountings compressed to 50% of their initial thickness. After release there was no permanent set or damage.