



PLASTIC SHIM COMPRESSION TEST

The below listed shims were loaded in Compression until permanent deformation occurred with results as follows **:

Part Number	Dimensions – Inches	Color	Piece # 1 LBS / shim	Piece # 2 LBS / shim
402-1 x 1/16	1-1/2 x 2 x 1/16	Blue	30,000	30,000
402-1 x 1/8	1-1/2 x 2 x 1/8	Red	22,000	22,500
402-1 x 1/4	1-1/2 x 2 x 1/4	Black	12,500	12,500
402-2 x 1/16	2-5/16 x 3 x 1/16	Blue	52,000	52,500
402-2 x 1/8	2-5/16 x 3 x 1/8	Red	40,000	42,000
402-2 x 1/4	2-5/16 x 3 x 1/4	Black	22,500	22,500
402-2 x 3/8	2-15/16 x 3 x 3/8	White	12,500	12,500
402-3 x 1/16	1-1/2 x 3-1/2 x 1/16	Blue	50,000	50,000
402-3 x 1/8	1-1/2 x 3-1/2 x 1/8	Red	27,500	26,000
402-3 x 1/4	1-1/2 x 3-1/2 x 1/4	Black	13,000	13,500
402-3 x 3/8	1-1/2 x 3-1/2 x 3/8	White	15,000	15,000
402-4 x 1/16	1-7/8 x 2-5/8 x 1/16	Blue	32,000	33,000
402-4 x 1/8	1-7/8 x 2-5/8 x 1/8	Red	22,000	22,000
402-4 x 1/4	1-7/8 x 2-5/8 x 1/4	Black	15,000	15,000
402-6 x 1/32	3 x 4 x 1/32	Green	127,000	127,000
402-6 x 1/16	3 x 4 x 1/16	Blue	95,000	95,000
402-6 x 1/8	3 x 4 x 1/8	Red	75,000	75,000
402-6 x 1/4	3 x 4 x 1/4	Black	70,000	70,000
402-6 x 3/8	3 x 4 x 3/8	White	45,000	42,500
402-6 x 1/2	3 x 4 x 1/2	Brown	30,000	32,000
402-6 x 5/8	3 x 4 x 5/8	Purple	30,000	30,000
402-6 x 3/4	3 x 4 x 3/4	Blue	30,000	30,000
402-6W x 1/4	3 x 4 x 1/4 to 1/16	Tan	100,000	100,000
444-1 x 1/4	1-1/2 x 3-3/8 x 1/4 to 1/32	Black	27,000	27,000
444-2 x 3/8	1-1/2 x 6 x 3/8 to 1/32	Black	50,000	50,000
444-3 x 1/4	1-1/2 x 8 x 1/4 to 1/16	Black	75,000	75,000
424-1 x 1/16	1-7/8 x 3-1/8 x 1/16	Black	120,000	123,000
424-2 x 1/16	1-7/8 x 3-5/8 x 1/16	Black	130,000	130,000
424-3 x 1/16	1-7/8 x 5-1/8 x 1/16	Black	145,000	145,000
424-1 x 1/32	1-7/8 x 3-1/8 x 1/32	Black	135,000	135,000
460-2 x 2 x 1/16	2 x 2 x 1/16	Black	90,000	93,000
460-2 x 2 x 1/8	2 x 2 x 1/8	Black	65,000	72,500
460-2 x 2 x 1/4	2 x 2 x 1/4	Black	45,000	45,000
460-2 x 2 x 3/8	2 x 2 x 3/8	Black	15,000	15,000
460-2 x 4 x 1/16	2 x 4 x 1/16	Black	95,000	97,000
460-2 x 4 x 1/8	2 x 4 x 1/8	Black	80,000	80,000
460-2 x 4 x 1/4	2 x 4 x 1/4	Black	35,000	35,000
460-2 x 4 x 3/8	2 x 4 x 3/8	Black	25,000	25,000
460-2 x 6 x 1/16	2 x 6 x 1/16	Black	200,000	200,000
460-2 x 6 x 1/8	2 x 6 x 1/8	Black	200,000	200,000
460-2 x 6 x 1/4	2 x 6 x 1/4	Black	100,000	100,000
460-3 x 3 x 1/16	3 x 3 x 1/16	Black	78,000	80,000

Part Number	Dimensions – Inches	Color	Piece # 1 LBS / shim	Piece # 2 LBS / shim
460-3 x 3 x 1/8	3 x 3 x 1/8	Red	60,000	62,000
460-3 x 3 x 1/4	3 x 3 x 1/4	Black	45,000	46,000
460-3 x 3 x 3/8	3 x 3 x 3/8	Black	35,000	35,000
460-3 x 3 x 1/2	3 x 3 x 1/2	Black	25,000	25,000
460-3 x 4 x 1/2	3 x 4 x 1/2	Pink	35,000	37,500
460-4 x 4 x 1/16	4 x 4 x 1/16	Black	200,000	200,000
460-4 x 4 x 1/8	4 x 4 x 1/8	Grey	175,000	175,000
460-4 x 4 x 1/4	4 x 4 x 1/4	Black	60,000	60,000
460-4 x 4 x 3/8	4 x 4 x 3/8	White	55,000	55,000
460-4 x 4 x 1/2	4 x 4 x 1/2	Black	45,000	47,500
460-4 x 6 x 1/16	4 x 6 x 1/16	Black	200,000	200,000
460-4 x 6 x 1/8	4 x 6 x 1/8	Black	200,000	200,000
460-4 x 6 x 1/4	4 x 6 x 1/4	Black	200,000	200,000
460-4 x 6 x 3/8	4 x 6 x 3/8	Black	150,000	150,000
460-4 x 6 x 1/2	4 x 6 x 1/2	Black	115,000	110,000
460-6 x 6 x 1/16	6 x 6 x 1/16	Black	200,000	200,000
460-6 x 6 x 1/8	6 x 6 x 1/8	Black	200,000	200,000
460-6 x 6 x 1/4	6 x 6 x 1/4	Black	200,000	200,000
460-8 x 8 x 1/16	8 x 8 x 1/16	Black	200,000	200,000
460-8 x 8 x 1/8	8 x 8 x 1/8	Black	200,000	200,000
460-8 x 8 x 1/4	8 x 8 x 1/4	Black	200,000	200,000
460-8 x 8 x 1	8 x 8 x 1	Black	200,000	200,000

** NOTE: These measurements do not represent mill certifications. They are tests done on individual samples of one specific production run. Fabricator and/or installer should determine acceptable workloads. These measurements should be used for reference only. Horseshoe shim material is polypropylene. Other materials vary (High Impact Poly Styrene or Glass Filled ABS)

MATERIAL PROPERTIES

	Method	Polypropylene	High Impact Polystyrene
Tensile strength at break, p.s.i.	D638 ^b	4500-6000	5200-7500
Elongation at break, %	D638 ^b	100-600	1.2-2.5
Tensile yield strength, p.s.i.	D638 ^b	4500-5400	
Comprehensive strength (rupture or yield), p.s.i.	D695	5500-8000	6000-8000
Flexural strength (rupture or yield), p.s.i.	D790	6000-8000	10,000-14,600
Tensile modulus, 10 ³ , p.s.i.	D638 ^b	165-225	330-475
Comprehensive modulus, 10 ³ , p.s.i.	D695	150-300	480-490
Flexural modulus, 10 ³ , p.s.i.	73°F D790 200°F D790 250°F D790 300°F D790	170-250 50 35	380-490
Izod impact, ft-lb/in of notch (1/8" thick specimen)	D256A	0.4-1.2	0.35-0.45
Hardness Rockwell Shire/Barcol	D785	R80-102 D2240/D2583	M60-75

All of our plastic shims are manufactured in the United States with recycled plastic material.
The recycled plastic content is over 98%.