



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	28,000	31,000
402-1 x 1/8	1-1/2 x 2 x 1/8	Red	21,000	21,000
402-1 x 1/4	1-1/2 x 2 x 1/4	Black	9,500	10,000
402-2 x 1/16	2-5/16 x 3 x 1/16	Blue	50,000	50,000
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	20,000	20,000
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	25,000	23,000
402-3 x 1/4	1-1/2 x 3-1/2 x 1/4	Black	12,000	12,000
402-3 x 3/8	1-1/2 x 3-1/2 x 3/8	White	14,000	15,000
402-4 x 1/16	1-7/8 x 2-5/8 x 1/16	Blue	33,000	34,000
402-4 x 1/8	1-7/8 x 2-5/8 x 1/8	Red	22,000	21,500
402-6 x 1/32	3 x 4 x 1/32	Green	125,000	125,000
402-6 x 1/16	3 x 4 x 1/16	Blue	85,000	80,000
402-6 x 1/8	3 x 4 x 1/8	Red	55,000	55,000
402-6 x 3/8	3 x 4 x 1/4	Black	40,000	42,000
402-6 x 1/4	3 x 4 x 3/8	White	40,000	40,000
402-6 x 1/2	3 x 4 x 1/2	Brown	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	25,000	25,000
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	115,000	110,000
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	140,000	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	95,000	95,000
460-2 x 2 x 1/8	2 x 2 x 1/8	Black	60,000	62,500
460-2 x 2 x 1/4	2 x 2 x 1/4	Black	45,000	45,000
460-2 x 4 x 1/16	2 x 4 x 1/16	Black	90,000	91,000
460-2 x 4 x 1/8	2 x 4 x 1/8	Green	75,000	75,000
460-2 x 4 x 1/4	2 x 4 x 1/4	Black	30,000	30,000
460-3 x 3 x 1/16	3 x 3 x 1/16	Black	75,000	80,000
460-3 x 3 x 1/8	3 x 3 x 1/8	Black	60,000	62,000
460-3 x 3 x 1/4	3 x 3 x 1/4	Grey	45,000	40,000

Plastic
Wedge
Shim →

← Plastic
Wedge
Shim

** 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