

AEROTECH I218

CERTIFIED VALUES

Total Impulse: 330 newton-seconds
Delays: 6, 14 seconds and Plugged

Propellant Type: Composite / Redline
Propellant Mass: 172.7 grams

Casing Dimensions: 38 mm × 203 mm

Certification Date: May 7, 2001

Certification Type: High Power Rocket

STATIC TEST DATA

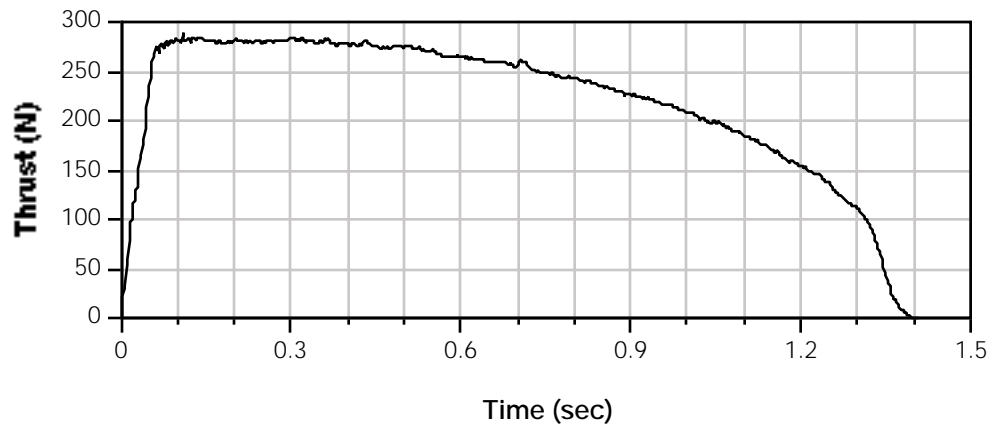
Date Tested: May 6, 2001

Total Impulse: 319.63 newton-seconds (0.93)
Peak Thrust: 289.04 newtons (5.08)
Burn Time: 1.41 seconds (0.02)
Average Thrust: 226.51 newtons

Mass After Firing: 177.7 grams

Delay Time	Average Measured Delay	Initial Mass	Mfg Recommended Max Liftoff Weight
6	5.39	358.4 g	
14	12.36	360.5 g	
P	None	358.9 g	

TYPICAL THRUST-TIME CURVE



REMARKS

Uses AeroTech RMS-38/360 Reload System and AeroTech I218 Reload Kit. No substitutions allowed.

AEROTECH	I218			Propellant			
				Type: RedLine			
				Mass: 172.7 Gm			
Data Rate	2000 CPS						
Test Date	May 6, 2001			ISP (Sec)	189		
Rated Avg Thrust:	226.69						
ENGINE	TOTAL	MAX	AVG	BURN	DELAY	INITAL	EMPTY
TYPE	IMPULSE	THRUST	THRUST	TIME	TIME	WEIGHT	WEIGHT
AERO I218-6	321.11	293.70	227.10	1.41	5.74		
AERO I218-6	320.12	288.75	228.99	1.40	4.87	358.4	
AERO I218-6	319.20	289.70	226.70	1.41	5.57		
AERO I218-P	320.63	297.58	222.66	1.44		358.7	
AERO I218-P	318.00	289.75	228.12	1.39		359.2	177.9
AERO I218-P	319.12	291.66	227.30	1.40		358.9	177.5
AERO I218-14	318.61	281.08	223.12	1.43	13.19	360.6	177.3
AERO I218-14	319.89	280.92	222.76	1.44	11.80	359.7	177.3
AERO I218-14	319.99	288.26	231.20	1.38	12.04	361.2	178.6
AVG	319.63	289.04	226.51	1.41			177.72
STD	0.93	5.08	2.83	0.02			
STD %	0.29	1.76	1.25	1.43			
			DELAYS				
ALLOWABLE							INITAL
RANGE	INDICATED	AVG	ACTUAL	ACTUAL	ACTUAL	ACTUAL	WEIGHT
4.5 To 7.5	6	5.39	5.74	4.87	5.57		358.4
11.2 To 16.8	14	12.36	13.19	11.84	12.04		360.5
					P		358.9

; Aerotech I218 RASP.ENG file made from NAR data
 ; File produced August 22, 2002
 ; The total impulse, peak thrust, average thrust and burn time are
 ; the same as the averaged static test data on the NAR web site in
 ; the certification file. The curve drawn with these data points is as
 ; close to the certification curve as can be with such a limited
 ; number of points (32) allowed with wRASP up to v1.6.

I218 38 203 6-14-P 0.1727 0.3895 A
 0.000 0.000
 0.016 100.132
 0.039 201.502
 0.051 271.590
 0.066 285.401
 0.099 288.906
 0.137 289.040
 0.167 289.009
 0.230 290.245
 0.319 288.906
 0.355 291.379
 0.374 285.092
 0.410 286.329
 0.418 292.616
 0.460 283.752
 0.526 278.702
 0.627 269.838
 0.691 263.550
 0.707 268.601
 0.726 258.500
 0.822 248.399
 0.970 222.013
 1.031 204.491
 1.050 204.388
 1.120 184.392
 1.192 159.243
 1.256 134.197
 1.302 111.625
 1.332 80.260
 1.350 42.691
 1.369 17.635
 1.410 0.000

