

AEROTECH D2.3

CERTIFIED VALUES

Total Impulse: 17.21 newton-seconds
Delays: Plugged
Propellant Type: Composite
Propellant Mass: 10.7 grams
Casing Dimensions: 18 mm X 72 mm

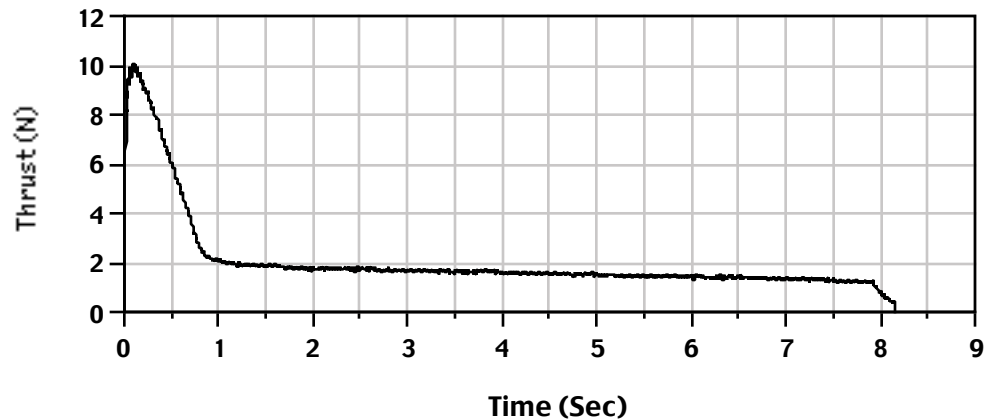
Certification Type: Model Rocket

STATIC TEST DATA

Date Tested: 7-July-2013
Total Impulse: 17.21 newton-seconds (0.42)
Peak Thrust: 10.14 newtons (1.50)
Burn Time: 8.14 seconds (0.25)
Average Thrust: 2.12 newtons
Mass After Firing: 16.4 grams

Delay Time	Average Measured Delay	Initial Mass
PT	0.00	29.3 g

TYPICAL THRUST-TIME CURVE



REMARKS

MOTOR NO.	ENGINE TYPE	TOTAL IMPULSE	MAX THRUST	AVG THRUST	BURN TIME
1	D2.3-PT	17.41	9.39	2.09	8.34
2	D2.3-PT	17.22	9.28	2.12	8.14
3	D2.3-PT	17.26	9.80	2.15	8.02
4	D2.3-PT	17.02	8.94	2.01	8.48
5	D2.3-PT	17.46	11.21	2.22	7.86
6	D2.3-PT	16.40	8.05	1.94	8.47
7	D2.3-PT	17.68	12.16	2.13	8.29
8	D2.3-PT	17.95	12.64	2.34	7.68
9	D2.3-PT	17.05	9.82	2.08	8.19
10	D2.3-PT	16.60	11.10	2.01	8.25
11	D2.3-PT	17.11	11.20	2.13	8.04
12	D2.3-PT	17.42	8.12	2.19	7.94
	AVG	17.21	10.14	2.12	8.14
	STD	0.43	1.50	0.11	0.24
	STD %	2.48	14.83	5.03	3.01

; Aerotech D2.3-PT RASP.ENG file made from NAR published data
 ; File produced, 2013
 ; 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.

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0.020	5.071
0.039	9.478
0.093	10.140
0.184	9.478
0.275	8.429
0.438	6.820
0.657	4.372
0.747	3.392
0.838	2.413
1.056	2.064
1.365	1.923
1.892	1.783
2.528	1.713
2.946	1.713
3.219	1.643
4.091	1.573
4.727	1.573
5.218	1.573
5.636	1.573
6.217	1.573
6.726	1.433
7.199	1.503
7.635	1.363
7.907	1.224
8.016	0.734
8.140	0.000

