

AEROTECH G76G

CERTIFIED VALUES

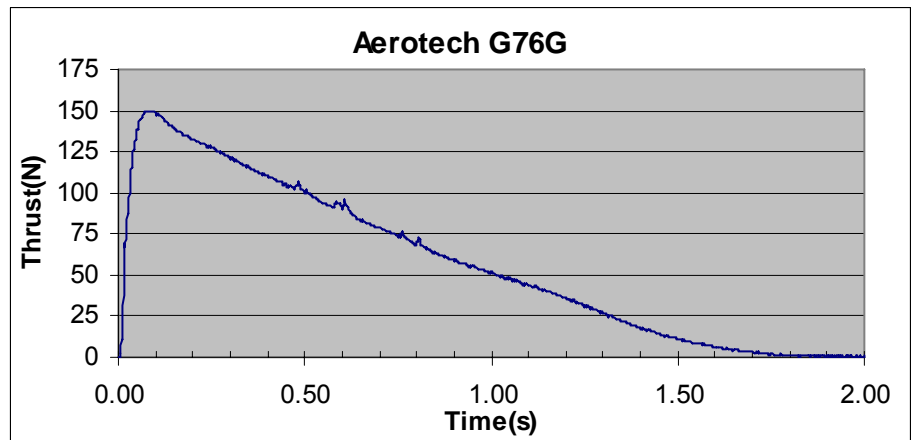
Total Impulse: 115.0 Newton-seconds
Delays: 4, 7, 10 seconds
Propellant Type: Mohave Green
Propellant Mass: 60.0 grams
Casing Dimensions: 29mm × 124mm
Certification Date: May 29, 2008
Certification Type: Model Rocket Motor

STATIC TEST DATA

Date Tested: May 25, 2008
Total Impulse: 115.0 Newton-seconds (σ 1.8)
Peak Thrust: 149.2 Newtons (σ 2.8)
Burn Time: 1.59 seconds (σ 0.05)
Average Thrust: 71.6 Newtons (σ 2.4)
Mass After Firing: 77 grams

Delay Time(sec.)	10	7	4
Average Measured Delay(sec.)	9.47	6.51	4.36
Initial Mass (gm.)	145	143	143

TYPICAL THRUST-TIME CURVE



REMARKS

Uses Aerotech RMS 29/40-120 Reload System and Aerotech G76G reload kit. No substitutions allowed



Data File #	Engine	Total Impulse	Max Thrust	Avg Thrust	Burn Time	Delay Time	Init Weight	Fired Weight
080525W01	G76-4G	118.4	151.0	70.8	1.643	3.78	143.6	78.5
080525W02	G76-4G	113.4	147.5	71.1	1.581	4.55	142.7	77.6
080525W03	G76-4G	112.7	151.4	73.8	1.516	4.75	142.2	77.1
080511W05	G76-7G	116.1	149.7	73.1	1.571	6.81	144.0	76.0
080511W06	G76-7G	115.1	151.8	72.9	1.566	7.13	141.9	76.0
080511W14	G76-7G	115.3	146.3	69.1	1.655	5.58	143.9	77.0
080511W10	G76-10G	112.7	146.1	67.3	1.663	8.81	142.3	76.0
080511W11	G76-10G	116.3	150.2	75.4	1.524	10.26	147.0	79.0
080511W12	G76-10G	116.0	145.0	70.6	1.626	9.93	145.0	76.0
080511W13	G76-10G	114.5	153.2	71.8	1.584	8.86	145.0	78.0
Average		115.0	149.2	71.6	1.59		143.8	77.1

Std Dev		1.788	2.795	2.363	0.052
Std Dev %		1.6%	1.9%	3.3%	3.3%

Range	Indicated	Actual	Actual	Actual	Actual	Average
2.5 to 5.5	4	3.78	4.55	4.75		4.36
5.5 to 8.5	7	6.81	7.13	5.58		6.51
8.0 to 12.0	10	8.81	10.26	9.93	8.86	9.47

; @File: G76G_Composite.txt, @Pts-I: 1001, @Pts-O: 33, @Sm: 4, @CO: 5%
; @TI: 114.4814, @TIIa: 113.4881, @TIIe: +0.01%, @ThMax: 149.6117, @ThAvg: 72.3776, @Tb: 1.568
; Exported using ThrustCurveTool, www.ThrustGear.com

G72 29 124 4-7-10 0.06 0.144 Aerotech

0.0 0.686899
0.0040 4.23776
0.0060 9.67736
0.016 54.3647
0.03 98.111
0.034 108.4446
0.04 121.0874
0.048 132.9679
0.058 142.2629
0.068 147.1213
0.082 149.3041
0.112 146.8022
0.15 138.7003
0.17 135.958
0.376 112.1554
0.466 103.0176
0.482 104.3763
0.56 92.5972
0.606 92.8117
0.644 84.1557
0.748 73.895
0.76 74.2399
0.79 69.6626
0.804 70.558
0.822 66.7194
0.856 62.648
1.154 39.9734
1.3739 19.89863
1.4739 12.51241
1.5739 7.4133
1.7799 1.189557
1.9999 0.60939
2.0009 0