

# AEROTECH N1000

## CERTIFIED VALUES

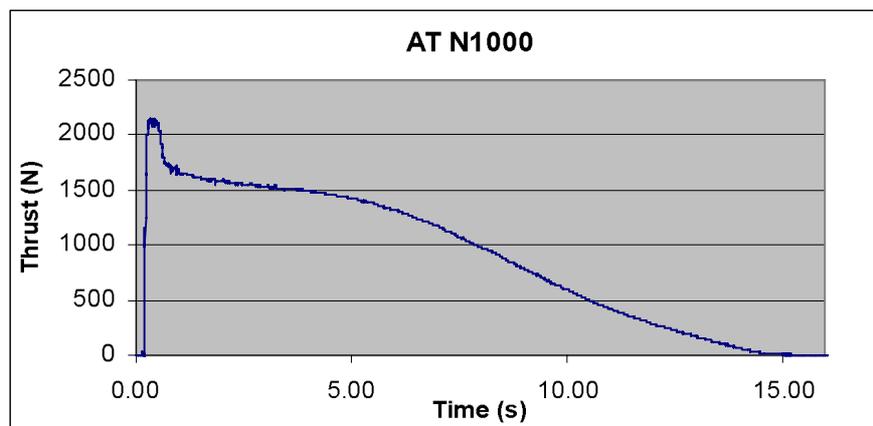
**Total Impulse:** 14126 Newton-seconds  
**Delays:** Plugged  
**Propellant Type:** White Lightning  
**Propellant Mass:** 7925 grams  
**Casing Dimensions:** 98mm × 1046mm  
**Certification Date:** August 25, 2008  
**Certification Type:** High Power Rocket Motor

## STATIC TEST DATA

**Date Tested:** August 25, 2008  
**Total Impulse:** 14126 Newton-seconds ( $\sigma$  141)  
**Peak Thrust:** 2262 Newtons ( $\sigma$  21)  
**Burn Time:** 13.05 seconds ( $\sigma$  0.90)  
**Average Thrust:** 1079 Newtons ( $\sigma$  81)  
**Mass After Firing:** 4478 grams

<b>Delay Time(sec.)</b>	<b>Plugged</b>		
<b>Average Measured Delay(sec.)</b>	N/A		
<b>Initial Mass (gm.)</b>	12771		

## TYPICAL THRUST-TIME CURVE



## REMARKS

**Certified for use in Aerotech 98/15360 hardware only.  
No substitutions allowed**



Data File #	Engine	Total Impulse	Max Thrust	Avg Thrust	Burn Time	Delay Time	Init Weight	Fired Weight
080825W03	AT-N1000	14026	2276	1022	13.68	Plugged	12768	4465
080825W04	AT-N1000	14226	2247	1136	12.41	Plugged	12773	4490
Average		14126	2262	1079	13.05		12771	4478
Std Dev		141.421	20.506	81.034	0.895			
Std Dev %		1.0%	0.9%	7.5%	6.9%			
<b>Range</b>	<b>Indicated</b>	<b>Actual</b>	<b>Actual</b>	<b>Actual</b>	<b>Actual</b>	<b>Actual</b>	<b>Average</b>	
	Plugged	Plugged	Plugged					

; @File: N1000.txt, @Pts-I: 8069, @Pts-O: 32, @Sm: 3, @CO: 5%  
; @TI: 14137.65, @Tla: 14071.08, @Tle: 0.0%, @ThMax: 2137.42, @ThAvg: 1048.203, @Tb: 13.424  
; Exported using ThrustCurveTool, www.ThrustGear.com  
N1048 98 1046 P 7.925 12.777 AT/RCS

0.0 0.457288  
0.152 0.314574  
0.162 40.2069  
0.164 148.3954  
0.168 598.904  
0.172 890.058  
0.176 995.096  
0.178 1158.031  
0.182 1342.306  
0.19 1556.716  
0.222 1959.8  
0.234 2050.53  
0.254 2111.01  
0.308 2119.9  
0.356 2073.29  
0.47 2091.07  
0.528 1989.543  
0.582 1825.825  
0.648 1733.526  
0.782 1658.07  
0.892 1701.725  
0.914 1633.231  
0.966 1669.558  
1.7839 1594.076  
1.8239 1551.156  
3.1999 1533.43  
5.4538 1378.986  
6.9577 1170.933  
10.9216 424.692  
13.5895 106.0499  
14.6754 12.60914  
16.1354 0.0