



Propellant Data

Part Number: 8124FJNF

Propellant Type: Black Max™

Visual Effect: Extremely dull red flame, dense black smoke

% Solids: 81

Density: 0.07302 lb/in³

I_{sp} at 1000/14.7 PSI: 174.4 seconds

Burn Rate Exponent: 0.398

Burn Rate Coefficient: 0.0200

Thermodynamic Properties at 1000/14.7 PSI:

ENTHALPY = -27.80563 DENSITY = 2.039
CSTAR = 3408.87

	CHAMBER	THR (SHIFT)	EXH (SHIFT)
PRESSURE (PSIA)	1000.000	574.604	14.700
EPSILON	.000	1.000	10.487
ISP	.000	69.953	174.371
ISP (VACUUM)	.000	130.834	190.704
TEMPERATURE (K)	1462.331	1389.072	1047.175
MOLECULAR WEIGHT	27.627	28.199	31.789
MOLES GAS/100G	3.620	3.546	3.146
CF	.000	.660	1.646
PEAE/M (SECONDS)	.000	60.881	16.333
GAMMA	1.275	1.269	1.236
HEAT CAP (CAL)	33.350	33.293	32.725
ENTROPY (CAL)	177.043	177.044	177.043
ENTHALPY (KCAL)	-27.806	-33.427	-62.735
DENSITY (G/CC)	1.56665E-02	9.67305E-03	3.70045E-04

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