

Erratum

Erratum on Performance of a Low Density Ablative Heat Shield Material

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The tables in the Appendix of this paper, published in the July–August 2008 issue of the *Journal of Spacecraft and Rockets*, contained some incorrect values due to a conversion factor error. The corrected values for Appendix Tables A1 and A2 are reproduced here. The authors realized the error after publication.

Appendix: Thermophysical Properties of PICA

Thermophysical properties for phenolic impregnated carbon ablator (PICA) are shown in Tables A1 and A2. A note of caution is needed for these data. The PICA char thermal conductivity and char specific heat values were derived by a process of matching fully implicit ablation and thermal (FIAT) model predictions with

experimental arc jet data on PICA response. Therefore, the use of these data with other modeling software or computational methods may not give valid results for PICA performance prediction. These data should not be considered to be independent of the FIAT code used for their derivation.

Table A1 Virgin material properties; density = 0.266 g/cm³

Temperature, K	Specific heat, kJ/kg · K	Thermal conductivity, W/cm · K	Emissivity
256	0.879	3.97E-03	0.80
294	0.984	4.02E-03	0.80
444	1.298	4.16E-03	0.80
556	1.465	4.53E-03	0.80
644	1.570	4.70E-03	0.80
833	1.716	4.86E-03	0.80
1111	1.863	5.23E-03	0.80
1389	1.934	5.60E-03	0.80
1667	1.980	6.98E-03	0.80
1944	1.988	8.72E-03	0.80
2222	2.001	1.11E-02	0.80
2778	2.009	1.75E-02	0.80
3333	2.009	2.78E-02	0.80

Table A2 Char material properties; density = 0.210 g/cm³

Temperature, K	Specific heat, kJ/kg · K	Thermal conductivity, W/cm · K	Emissivity
256	0.733	3.97E-03	0.90
294	0.783	4.02E-03	0.90
444	1.093	4.16E-03	0.90
556	1.319	4.53E-03	0.90
644	1.432	4.70E-03	0.90
833	1.674	4.86E-03	0.90
1111	1.842	5.23E-03	0.90
1389	1.967	5.60E-03	0.90
1667	2.051	6.05E-03	0.90
1944	2.093	7.29E-03	0.90
2222	2.110	9.22E-03	0.90
2778	2.135	1.46E-02	0.90
3333	2.152	2.32E-02	0.90