



## Thorndike Corporation

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**Bulletin No.: 111-TC4XXX HPC Series**

**Material: TC4XXX HPC Series of Materials:  
TC4000HPC-K 240 Grit "Grey" Silicon Carbide Absorber**

### MATERIAL CHARACTERISTICS

<b>Attenuation:</b>	>25 dB / inch at 10 GHz
<b>Density:</b>	.066 lbs/Cubic Inch - Average
<b>Relative Permeability:</b>	1.45
<b>Relative Permittivity:</b>	18 +/- 4 depending on grit size and batch characteristics
<b>Loss Factor dB/inch:</b>	159
<b>Thermal Coefficient of Linear Expansion:</b>	5x10 <sup>-6</sup> in/°c. from 25 to 1500 deg. C
<b>Outgassing Characteristics:</b>	Typical of Silicon Carbide
<b>Total Mass Loss (TML):</b>	<.30%
<b>Collected Volatile Condensable Materials (CVCM):</b>	<.30%

#### Note 1:

##### **NASA CRITERIA FOR SPACE MATERIAL ACCEPTANCE**

- TML less than or equal to 1.0%
- CVCM less than or equal to 0.10%
- Specific Heat: 750 J/Kg•°K or 0.18 (Btu/lb•°F)
- Thermal Conductivity: 4.5(BTU/hr. ft. °F) or 7.8 (Watts/m°k)

**CALL THORNDIKE CORPORATION FOR ALL YOUR LOW AND HIGH POWER ABSORBER REQUIREMENTS!!!**

