www.spacemicro.com

Advanced Materials Division

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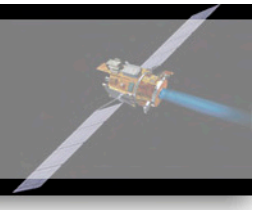
Advanced Materials Division



MISSION STATEMENT:

- Develop solutions to challenging materials problems for Terrestrial, Naval, and Aerospace applications
- Solutions may take a system form or material form
- Detect problems before they create failure
- Leverage technologies from other high tech fields, i.e. electronics, physics, and materials science.

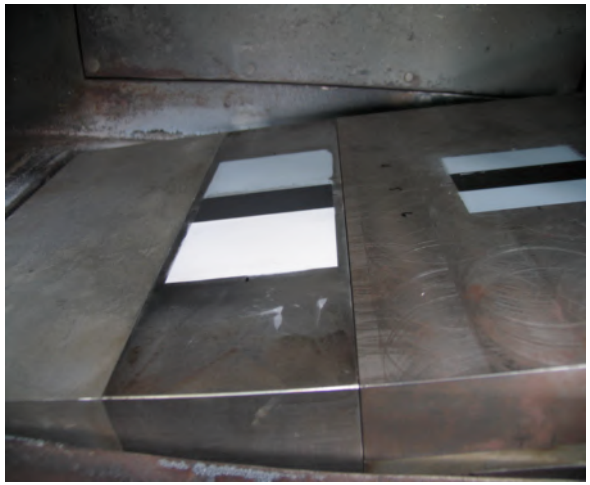
Advanced Materials Product Development: Temperature Sensitive Paint

Space Micro Inc. Advanced Materials Division new coatings Technology
Air Force SBIR-STTR Program Success Story

SAN DIEGO, CA – April 10,2008 – The Advanced Materials Division of Space Micro Inc. announced today that it has received recognition from AFRL in the form of a success story for its work with Air Force on SBIR topic “Temperature Sensitive Paint (TSP) for wind tunnel models.”

Temperature Sensitive Paint for Wind Tunnels

- HiREC™
  High Resolution Emissivity Coating
  - High speed wind tunnels
  - Over 60 runs without repair
  - Inorganic and thermally stable
  - 80ºF to 1200ºF operating range
  - Easy to apply and remove
  - Non toxic
  - Patent Pending

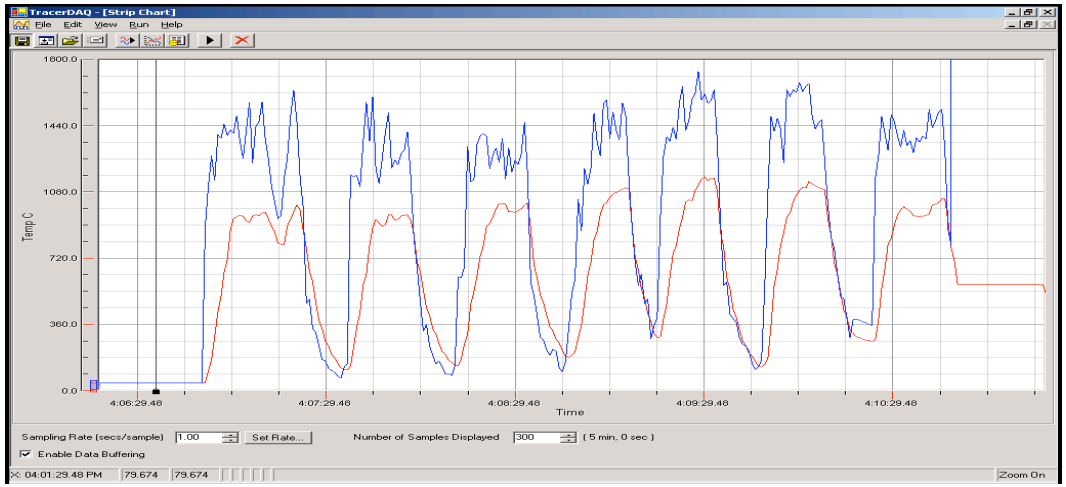


HiREC™ samples mounted in wind tunnel at Marshall Space Flight Center

High Temperature Coatings

- High Temperature Coatings Concept:
  - Derivative product from Temperature Sensitive Paint
- Coating to removes Carbon bond thermal limits associated with organic based adhesives
- Good performance to 1400°C
- Low temperature processing

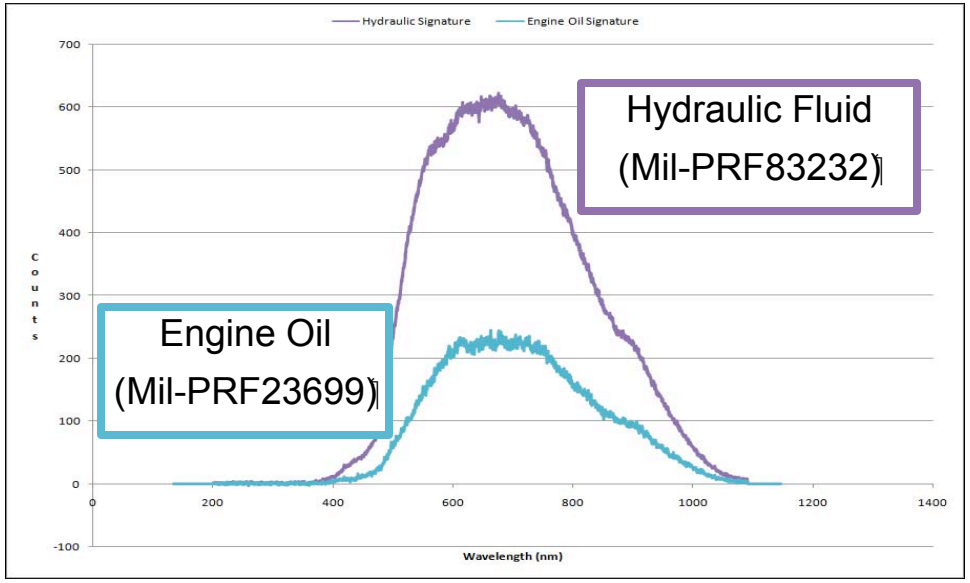
High Temp. Coatings – Thermal Performance Cycling



Titanium Thickness	0.05inch
Cure Temperature	<100C
Coating Thickness	4.24+_0.47 mils
Thermal Cycles	7
One Cycle Period	30 ~ 40 seconds
Front Surface Peak Temperature	Over 1400C
Back Surface Peak Temperature	1080C
Thermal reduction	300C or more

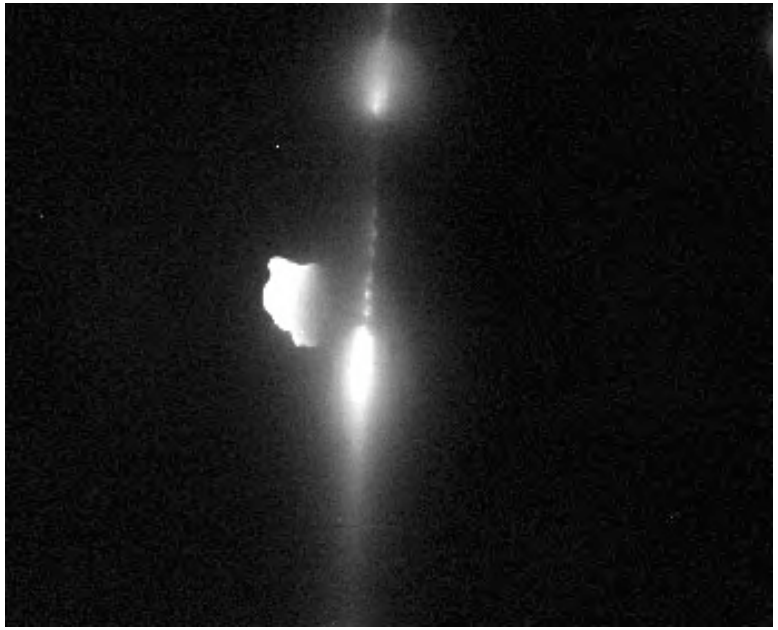
NDE for Composites Repair

- NDE for bond inspection and composites repair
  - Cost Effective
  - Real-time analysis
  - Uses full spectrum reflected light
  - Fingerprinting of specific substances for rapid contaminant identification
  - Software developed to find/analyze and quantify contaminants



NDE for Hidden Cracks in Metals

- Other Non destructive evaluation (NDE) technology
  - Chaotic Acoustic Technology (CAT)
  - Uses commercial off the shelf (COTS) technology
  - Used for detection of closed cracks and kissing bonds in Aluminium or other metal structures
  - STTR contract with Navy



Radiation Shielding for Space Applications

- Radiation shielding material Radcomp™
  - Hi Z/Lo Z composite material
  - B stage able for complex shapes
  - Multifunctional formulations for X-ray and thermal neutron exposures
  - Patent Pending