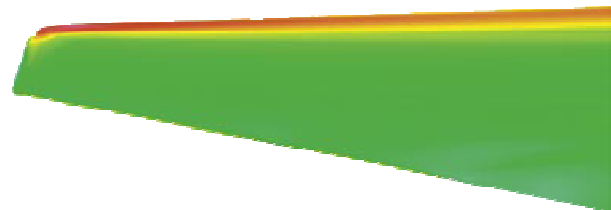


TPC™: Thermal Protection Coating

A novel thermal protection coating for advanced aerospace applications

TPC™ takes thermal protection to new heights. It utilizes a novel inorganic material to create a coating that shields against temperatures far above conventional, organic based coatings. It is easy to apply, easy to process, durable, and environmentally safe. TPC™ bonds to ceramics, metals, and even plastics, making it ideal for a wide range of aircraft and spacecraft applications.



Heritage

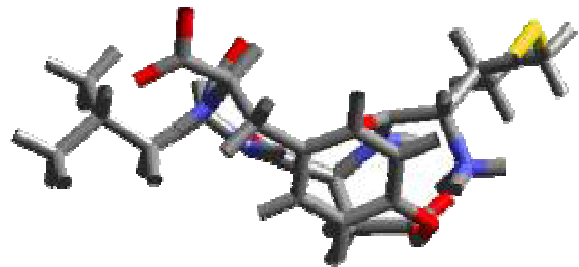
TPC™ was developed from Space Micro's proven and lauded Temperature Sensitive Paint (TSP), which was originally developed for wind tunnel models. TPC™ is the next generation of this advanced coating technology.

Applicability

Organic coatings break down at 400°C, which make them unsuitable for many air and space applications where aerothermal heating can easily reach 1000°C. TPC™ uses oxide bonds that work up to 1400°C.

Novel Chemistry

TPC™ is based on novel inorganic materials that display extreme heat resistance. These materials have been used in fire resistant panels, nuclear and toxic waste immobilization, and molds used in metal processing. However, Space Micro is the innovator creating a coating from these materials.



Details

- Low temperature cure < 100°C
 - 30 minutes at 60-80°C
 - 60 minutes at room temperature
- Sprayable formulation using spray gun for easy application
- Environmentally safe
 - Water clean up
 - No toxic by-products
- For applications from room temperature to 1400°C
- Bonds to ceramics, metals, and plastics
- Lower thickness and cross section than traditional solutions
- Enhanced durability and reliability over traditional solutions
- Ideal for any application that requires high thermal protection, such as aerothermal heating

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