

Mixing, Handling, and Application instructions for ARC-4300 Ablation Resistant Coating

- 1 MWT's ARC-4300 Room Temperature Cure Ceramic system is nontoxic, and requires no special handling other than gloves during application. An MSDS (Material Safety Data Sheet) is available. Note that while liquid, the material is caustic (pH > 8).
- 2 Coverage for the standard ARC-4300 material is 10 square meters per liter for a standard coating thickness of 0.1 mm. A minimum of 2 coats of ARC-4300 are recommended. Coating thickness for the insulating variant (ARC-4300i) is 6 square meters per liter for a standard coating thickness of 0.15 mm. A minimum of 2 coats of ARC-4300i are required, and a minimum of 3 coats are recommended.
- 3 Mix Parts A and B in equal amounts completely for a minimum of 10 minutes. Agitate periodically during application
- 4 ARC-4300 and ARC-4300i may both be sprayed, brushed, or rolled vertically. However, it is important that the material not run, and that the substrate be properly prepared (cleaned and or sandblasted) to ensure a chemical bond between the coating and the substrate.

Erosion Resistance – Extensive work has been done with both ARC-4300 and ARC-4300i to quantify resistance to abrasion, erosion, chemicals, and environment. Samples of these materials will remain intact after continuous impingement of sea water for 20 days, as well as abrasive materials. Erosion control can be tailored by the number of coats of ARC-4300 or ARC-4300i employed. Heating of the material by rocket exhaust tends to harden the coating making it more abrasion and erosion resistant.