



GAME-CHANGING FUNCTIONAL HEAT TRANSFER SURFACE

HeatX is a nanocomposite technology designed specifically for heat transfer surfaces focused on increasing the performance and surface protection from fouling and deposition. HeatX is a non-hazardous, non-VOC, water-based surface treatment that is compatible with both hydrocarbon and aqueous products. It allows for fouling-release and drag reduction while not compromising heat transfer efficiency.

HeatX Benefits:

- Long-lasting, erosion-resistant surface treatment that can significantly extend the operational lifetime of an in-service heat exchanger.
- Provides chemical resistance against both highly acidic and alkaline solutions, imparting corrosion resistance.
- Releases biofouling on tube interiors, improving cooling efficiency and reducing pressure drop from frictional drag.
- Extreme thinness of the surface treatment (< 4 mil DFT), allows for negligible change in exchanger thermal efficiency.
- Surface treatment material is compatible with a variety of different inspection techniques (eddy current, borescope, leak testing).
- Functional up to 400°F, and stable under thermal cycling.
- Non-biocidal, non-toxic formulation is environmentally friendly

HeatX Applications:

HeatX has successfully demonstrated the value in field applications, both for new and in-service heat exchangers. So far, HeatX has been applied on both shell & tube and plate & frame exchangers. The longest running data is from a sea water chiller: 18 months of data after application shows virtually zero fouling or corrosion. More importantly, this application demonstrated a projected savings of \$72,000 on maintenance and \$1.5 million on replacement generation cost over a period of five years – per heat exchanger unit.



18 Months of use shows virtually no biofouling in the exchange tubes