

CONFIDENTIAL INFORMATION

HIGH TEMPERATURE HIGH EMISSIVITY COATINGS

PRODUCT HIGHLIGHTS

GreenCoat Series line of high emissivity coatings are black-body formulations designed to significantly improve the thermal efficiency of infrared heaters, furnaces, incinerators, and ovens used throughout the appliance, ceramics, chemical processing, metallurgical, and refining industries. Natural gas and oil savings in the range of 5–10% are typical using these coatings.

- GE80-C** Ceramic-based, black-pigmented coating for ceramic fiber modules, light-weight refractory board, and dense refractories to 1093 °C.
- GE80-CX** Ceramic-based, black-pigmented coating for ceramic fiber modules, light-weight refractory board, and dense refractories to 1316 °C.
- GE80-CM** Ceramic-based, black-pigmented coating for dense refractories and refractory metals to 1093 °C.
- GE80-M** Ceramic-based, black pigmented coating for carbon and stainless steel to 1093 °C.
- GE80-MX** Ceramic-based, black pigmented coating for carbon and stainless steel to 1316 °C.
- GE80-MS** Silicone-Ceramic, black pigmented coating for aluminum, copper, carbon and stainless steel to 593 °C
- GE71-MS** High emissivity ceramic coating provides protection of both carbon and stainless steel tubes while increasing heat transfer and thermal efficiency. Emissivity 0.92 at 288° C. Maximum service temperature 899° C.
- GE78-RS** High emissivity ceramic coating to be applied to refractory hot face surfaces to re-radiate heat.. Emissivity 0.92 at 538° C. Maximum service temperature 1200° C.



GE80-M coats gas-fired heating tubes



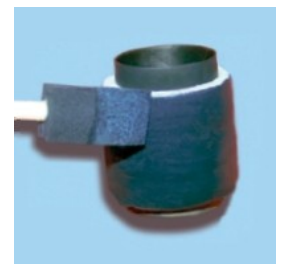
GE80-C coats ceramic fiberboard infrared heater.



GE80-M coats industrial heat exchanger.



GE80-M coats gas burner component.



GE80-C coats exhaust pipe insulation.

As an example, the high emissivity property of the ceramic coating **GE71-MS** will improve the thermal efficiency and throughput capability of the ceramic coated process heater, which is accomplished by increasing the absorbed duty capability of the ceramic coated process tubing while eliminating the formation of the insulating surface layers. Maximum service temperature 899° C.

High emissivity coatings absorb and re-radiate significantly more radiant and convective heat than an uncoated burner tube or refractory to a cooler load. For refractories lined systems, this reduces the amount of heat stored in the lining which results in less thermal shock and related thermal stresses, resulting in longer refractory life and reduced maintenance costs. Since less energy is absorbed by the refractory lining, faster heat-ups result, reducing cycle time and energy costs.