PRODUCT HIGHLIGHTS

Aremco’s HiE-Coat™ 840-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.

840-C Ceramic-based, black-pigmented coating for ceramic fiber modules, light-weight refractory board, and dense refractories to 2000 °F (1093 °C).

840-CX Ceramic-based, black-pigmented coating for ceramic fiber modules, light-weight refractory board, and dense refractories to 2400 °F (1316 °C).

840-CM Ceramic-based, black-pigmented coating for dense refractories and refractory metals to 2000 °F (1093 °C).

840-M Ceramic-based, black pigmented coating for carbon and stainless steel to 2000 °F (1093 °C).

840-MX Ceramic-based, black pigmented coating for carbon and stainless steel to 2400 °F (1316 °C).

840-MS Silicone-Ceramic, black pigmented coating for aluminum, copper, carbon and stainless steel to 1100 °F (593 °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.
### Reference Notes

1. Viscosity is measured using a Brookfield LV Viscometer; spindle and speed selection vary depending on the product.
2. Recommended Dry Film Thickness (DFT).
3. Actual coverage will vary depending on material losses during mixing and application.
4. Where a value is provided for "Min Air Set", it is recommended to set the coating at room temperature for, at minimum, the specified time prior to curing.

### Surface Preparation Notes

All surfaces should be free of oil, grease, dirt, corrosives, oxides, paints or other foreign matter. No further preparation is required when coating ceramics, refractories or graphites. Quartz should be sandblasted whenever possible. Smooth metal surfaces should be sandblasted or etched using Aremco’s Corr-Prep® CPR2000.

### Abbreviations

| NA | Not Applicable | DFT | Dry Film Thickness |
| NR | Not Required | WFT | Wet Film Thickness |

### Spectral Normal Emissivity at 800 °C

#### HIE-Coat™ 840-C

#### HIE-Coat™ 840-M

### For more Spectral Normal Emissivity Charts, visit aremco.com/tech-notes

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Refer to Price List for complete order information.

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The user assumes all risk of use or handling whether or not in accordance with directions or suggestions, or used singly or in combination with other products.