



REVOLUTIONARY INDUSTRIAL INSULATION - ELIMINATES CUI, IMPROVES LONG-TERM PERFORMANCE

Heat-Flex Advanced Energy Barrier (AEB) is a thermal insulative coating designed to eliminate Corrosion Under Insulation (CUI) and provide long-term performance that rivals mineral-based insulation systems. Designed to replace traditional insulation systems on storage tanks, process vessels and piping, Heat-Flex AEB offers superior long-term insulative performance compared to mineral-based materials which become wet over time, reducing thermal performance and causing CUI.

As a one-component coating, Heat-Flex AEB is fast, simple and easy to install - simply **Open, Mix and Apply** using commercially available spray equipment. Its easy application process reduces labour costs and enhances safety by minimising worker proximity to hot surfaces. By eliminating the need for traditional insulation materials, Heat-Flex AEB significantly reduces the environmental impact and extends the lifespan of steel assets, making it a superior choice for industrial insulation needs.

BENEFITS



Eliminates CUI

- Directly applied to primed steel assets, removing the need for traditional insulation systems.
- Removes the corrosion zone between traditional insulation and the substrate, a primary cause of CUI.
- Compatible with the entire Heat-Flex CUI Mitigation Primer portfolio.



Less Resource Intensive

- Reduces the environmental footprint by reducing CO2 and NOx (modeled by insulative software).
- Eliminating the manufacturing, shipping and dry storage of traditional insulation materials.
- Minimises the need for steel replacement and associated environmental costs due to elimination of CUI.



Superior Thermal Retention

- Process heat retention is comparable to traditional in-service insulation systems.
- Maintains consistent thermal efficiency, unlike traditional insulation systems, even in extreme environments up to 177°C, with excursions to 204°C.



Ease of Application and Maintenance

- One component: **Open, Mix and Apply.** Heat-Flex AEB is also easy to repair using trowelled material.
- Can be applied using commercially available spraying equipment, reducing installation time and labour costs.
- Allows for hot application, enabling continuous operations during maintenance up to 148°C.



Enhanced Safety

- Reduces burn risk for employees working in close proximity to hot assets.
- Simplifies maintenance time with on-site pre-assembly applications, reducing the need for extended permitting.

AWARDS

SHORTLISTED - 2026 Tank Storage Awards

WINNER - 2025 Gulf Energy Information Excellence Award

WINNER - 2025 Vaaler Award

KEY HIGHLIGHTS

- **Low Thermal Conductivity:** Less than 0.05 W/mK, providing excellent insulation.
- **Service Temperature:** Continuous up to 177°C, with excursions to 204°C.
- **High Film Build:** Apply 3,810-5,080µm DFT per coat, building to the desired thermal efficiency with multiple coats.
- **Compatibility:** Works effectively with primers like Heat-Flex 750 and Heat-Flex ACE.
- **Sustainability:** Eliminates the need for traditional insulation systems, reducing environmental impact.
- **Energy Costs:** Keeps hot things hot and cold things cold, optimising energy use and reducing emissions.
- **Reduces Cold Wall Effect:** Smaller thermal swings across the substrate surface will reduce strain on linings.

INDUSTRY APPLICATIONS

- Storage Tanks and Vessels
- Process Piping
- Valves and Fittings
- Offshore and Onshore Facilities
- Chemical and Petrochemical Plants
- Manufacturing & Processing

SERVICE THAT STANDS OUT

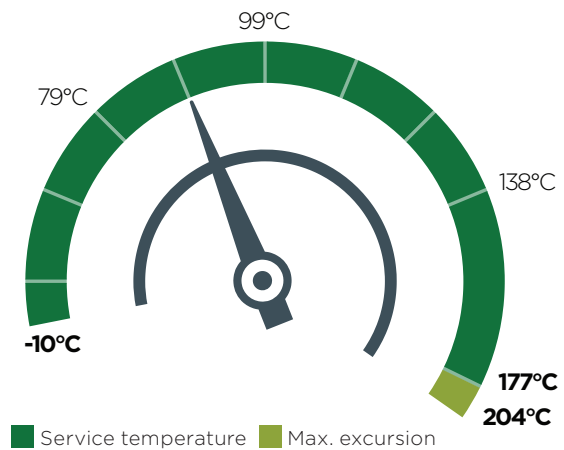
Technical Service for Optimal Applications

Our technical service team comprises industry experts armed with manufacturer equipment training to ensure proficiency throughout the coating process.

KEY PRODUCT ATTRIBUTES

- **Open, Mix and Apply:** No dispersion of insulating particles on-site enhances coating performance and improves consistency by eliminating the risk of mixing errors.
- **Engineering Solution:** Not just a paint, but a high-performance engineering solution.
- **Hot Application:** Can be applied to assets operating up to 148°C.
- **Replacement for Traditional Insulation:** Eliminates the need for mineral wool and cladding systems.
- **Innovative Formulation:** Acrylic waterborne base with insulating pigmentation.
- **Easily Repaired:** Damages can be easily repaired utilising a hand trowel application.
- **Superior Moisture Management:** Resists moisture penetration and retention, ensuring consistent thermal efficiency even during heavy rain and cleaning, with minimal water absorption and rapid water release.

SUITABLE THERMAL EFFICIENCY RANGE



Use above 204°C is not recommended.

THE SHERWIN-WILLIAMS DIFFERENCE

Sherwin-Williams Protective & Marine delivers world-class industry subject matter expertise, unparalleled technical and specification service, and unmatched regional commercial team support to our customers around the globe. Our broad portfolio of high-performance coatings and systems - including protective liquid and powder, fire protection and resinous flooring - excel at combating corrosion and help customers achieve smarter, time-tested asset protection. We serve a wide array of markets across our rapidly growing international distribution footprint, including Bridge & Highway, Energy, High Value Infrastructure, Manufacturing & Processing, Marine, Rail, Power and Water & Wastewater.

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