PRODUCT GUIDE

COAT IT BLUE

Revolutionary corrosion protection for residential and commerical HVAC Units.

- Environmentally friendly water-based formula
- Easily applied on site | No tear down required
- Aerosol, liquid and cylinder options available

COAT IT BLUE CORROSION PROTECTION

Coat It Blue

VAPC CELEBRATING 70

Section 1:

Traditional Corrosion Protection and the Need for a Better Solution

Corrosion is the enemy of every HVAC unit, relentlessly eating away at metal components and leading to premature failure. Traditional methods of combating corrosion often involve lengthy off-site repairs, harsh chemicals, and disruption to daily operations. These limitations translate to: Increased Costs, Downtime and Safety Concerns.

Corrosion acts as a silent destroyer within your HVAC&R unit, relentlessly consuming metal components and leading to premature failure.

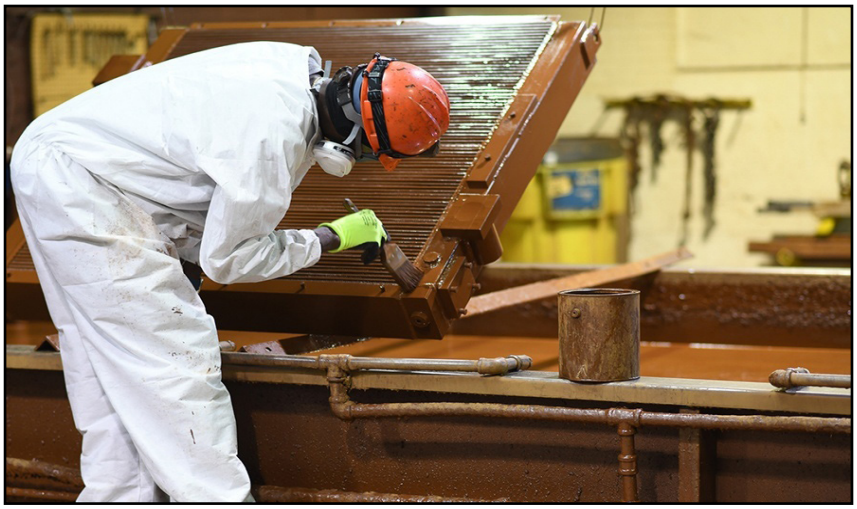
This insidious process weakens essential parts, causing a slow decline in performance that ultimately necessitates a costly replacement. Traditional methods for combating this enemy often come with significant drawbacks, leaving you feeling like you're fighting a battle on two fronts.

Lengthy off-site repairs can take your HVAC&R unit offline for days, disrupting business operations or plunging your home into discomfort. Imagine a sweltering summer day without air conditioning, or a critical server room left vulnerable to overheating due to a non-functioning cooling system. These disruptions are both costly and inconvenient.

Furthermore, traditional methods often rely on harsh chemical-based coatings. These pose health risks to technicians who apply them and can release harmful VOCs (volatile organic compounds) into the surrounding environment, causing respiratory irritation and other health problems.

Finally, corrosion not only shortens the lifespan of your unit but also reduces its efficiency over time, translating to higher energy bills as the unit struggles to maintain desired temperatures. Frequent repairs and eventual replacements due to corrosion add to the financial burden.

These limitations highlight the need for a better solution – a solution that effectively combats corrosion while prioritizing safety, convenience, and cost-effectiveness.



Traditional corrosion protection can disrupt your business or home comfort. Units are disassembled and transported to a facility for coating, leading to days or even weeks of downtime.

CORROSION IS A VERY SIGNIFICANT PROBLEM for HVAC units and can be a major factor contributing to premature failure.

Component Damage: Corrosion eats away at metal components within the HVAC unit, weakening them and reducing their efficiency. This can lead to leaks, decreased cooling or heating capacity, and ultimately, complete unit failure.

Increased Costs: Corrosion not only necessitates repairs and replacements more frequently, but also reduces the unit's efficiency, leading to higher energy bills.

Downtime: When corrosion necessitates repairs or replacements, your HVAC unit is out of commission. This can be particularly disruptive for businesses, where a non-functional cooling system can impact productivity.

Environmental Impact: Corrosion can lead to refrigerant leaks, which can be harmful to the environment. Additionally, traditional methods of corrosion protection often rely on harsh chemicals that can release harmful VOCs (volatile organic compounds).

Enter Coat It Blue (CIB), a revolutionary approach to protecting your HVAC system

Coat It Blue revolutionizes the traditional, disruptive process. Units no longer need disassembly and transport to specialized facilities, leading to days or even weeks of downtime. Disassembly and transportation also increase the risk of damage to the unit and pose safety hazards for technicians.

CIB's on-site application eliminates these concerns. Technicians can apply the coating directly at your location, minimizing disruption to your daily operations or home environment. This ensures continued comfort with minimal downtime. On-site application also boasts faster completion times compared to traditional methods, allowing your HVAC&R unit to be back up and running sooner.

CIB's flexibility caters to various unit sizes and configurations. Technicians can effectively coat the unit while it remains installed, eliminating the need for complex disassembly and reassembly, potentially reducing labor hours and translating to lower overall project costs.

Beyond these core benefits, on-site application minimizes the risk of damage to the unit by keeping it in place and creates a safer work environment for technicians. Finally, the on-site process is simply more convenient for you, as it eliminates the need to schedule unit removal and reinstallation around your busy schedule.

CIB-1 & CIBA-1: These 1-gallon containers and touch-up aerosols are ideal for smaller units or maintenance applications.

CIB-55: This 55-gallon drum offers a cost-effective solution for large-scale projects, ideal for commercial applications.

CIB-5 & CIRA-1 (Liquid): The 5-gallon containers and cleaning liquids are perfect for mid-sized projects and cleaning equipment.

CIB-SC & CIB-LC: These 10 lb and 30 lb cylinders are suitable for industrial use with compatible spray equipment.

COAT IT BLUE EMPOWERS you to achieve superior corrosion protection with several key advantages and benefits:

- **Large, Commercial Sizes:** CIB caters to your needs with a range of container options, including large sizes like 55-gallon drums and 10 lb & 30 lb cylinders. This ensures cost-effective protection for extensive HVAC&R systems in commercial settings.
- **On-Site Application:** Unlike traditional methods, CIB allows HVAC contractors to perform application directly at your location. This minimizes downtime for your business and streamlines the maintenance process.
- **Water-Based Technology:** CIB utilizes a safe and environmentally friendly water-based formula. This eliminates the hazards associated with solvent-based coatings, promoting safety for technicians and minimizing environmental impact.

- **Unmatched Corrosion Protection:** CIB delivers up to 5+ years of protection against neutral salt spray corrosion, significantly extending the lifespan of your commercial HVAC units.

- **Improved Efficiency:** By preventing corrosion and maintaining optimal heat exchanger performance, CIB helps reduce operating costs and improve energy efficiency in your commercial facilities. By minimizing downtime and simplifying maintenance, CIB ensures your HVAC unit operates at peak efficiency, saving you money on energy bills in the long run.

- **Easy Application:** The self-etching, water-based formula allows for straightforward application by service technicians, minimizing disruption to your business operations.

Save Time and Money for Homeowners: No more waiting for specialists or dealing with lengthy repair processes. CIB empowers HVAC contractors to perform on-site application, minimizing downtime and disruption to your daily routine.

Reduced Costs for Contractors: CIB eliminates the need for transporting units to off-site facilities, streamlining your workflow and reducing operational costs.

Safe and Environmentally Friendly: CIB is low-odor, water-based, and NSF accredited (splash zone listed), making it a safe choice for technicians and the environment.

Tailored for Large Commercial Systems

Traditional corrosion protection methods can be particularly cumbersome and expensive for large commercial HVAC systems. These systems are often complex, requiring specialized handling and extensive coating materials. CIB addresses this challenge with its availability in large sizes, specifically designed to cater to the needs of commercial buildings:

Cost-Effective Solution: CIB's large container sizes offer an economical way to protect extensive HVAC systems. By minimizing the number of containers needed for the job, CIB reduces material costs compared to using smaller sized containers for the same coverage area.

Reduced Application Time: Large containers allow contractors to cover larger areas with fewer refills. This translates to faster application times, saving on labor costs and minimizing disruption to building operations.

Streamlined Logistics: The use of fewer containers simplifies logistics and storage requirements on the job site. This reduces clutter and ensures a more efficient application process.

Scalability to Diverse Systems: CIB's large sizes cater to a wide range of commercial HVAC unit configurations, from rooftop units to chilled water systems. This versatility eliminates the need for multiple coating products for different system sizes.

Minimized Waste: Large containers help reduce coating waste by minimizing the need for partially used containers on smaller jobs. This translates to cost savings and reduces environmental impact.

BEYOND COST-EFFECTIVENESS: Additional Benefits of Large Sizes

Consistent Coating Quality: Using larger containers ensures a consistent coating throughout the application process. This reduces the risk of variations that can occur when mixing and using multiple smaller containers.

Improved Project Efficiency: The larger sizes contribute to a more streamlined and efficient project completion for contractors working on large commercial buildings.

By offering large sizes specifically designed for commercial applications, CIB provides a cost-effective and efficient solution for protecting vital systems in your business.

Section 2:

UNVEILING THE SCIENCE

From Innovation to Formulation: The Science Behind COAT IT BLUE

CIB's development began with a deep understanding of the corrosion challenges faced by HVAC units. Our team of engineers meticulously researched various coating technologies, ultimately selecting a cutting-edge water-based polymeric formula. This formula offers several advantages:

Superior Adhesion: CIB's self-etching properties create a microscopic etch on the metal surface, ensuring a strong bond with the underlying metal for long-lasting protection.

Exceptional Barrier Properties: The polymeric formula forms a robust barrier that shields metal surfaces from harmful elements like moisture, salt spray, and airborne contaminants.

Water-Based Technology: Unlike solvent-based coatings, CIB prioritizes safety and environmental responsibility. The water-based formula minimizes VOC emissions and eliminates the health risks associated with harsh chemicals.

Chemical Resistance:

Coat It Blue (CIB) is formulated to withstand a wide range of challenging environments. Once cured, it transforms into a resilient blue, high-gloss, hard film that offers exceptional protection. Here's a detailed breakdown of CIB's chemical resistance against various substances:

Corrosive Agent	Strength	Rating
Hydrochloric Acid	5%	Excellent
Hydrochloric Acid	10%	Excellent
Hydrochloric Acid	20%	Excellent
Hydrochloric Acid	30%	Good
Sulphuric Acid	5%	Excellent
Sulphuric Acid	10%	Excellent
Sulphuric Acid	20%	Excellent
Sulphuric Acid	30%	Good
Phosphoric Acid	5%	Excellent
Phosphoric Acid	10%	Excellent
Phosphoric Acid	20%	Excellent
Phosphoric Acid	30%	Excellent
Phosphoric Acid	40%	Excellent
Phosphoric Acid	50%	Excellent
Acetic Acid	10%	Good
Sodium Hydroxide	10%	Poor
Trichloroethylene		Good
Toluene		Good
Methylated Spirits		Good
Mineral Turps		Good
MEK		Poor
Acetone		Poor

This table provides a comprehensive overview of CIB's chemical resistance capabilities. As you can see, CIB excels against a wide range of acids, performs well with some solvents, and offers excellent protection against saltwater and common environmental fumes. However, it's important to remember the limitations for strong alkalies and oxidizing chemicals.

By understanding CIB's chemical resistance profile, you can make an informed decision about its suitability for your specific application.

PUTTING COAT IT BLUE TO THE TEST: A Multi-Layered Approach

CIB doesn't rely solely on theoretical advantages. We subject our coating to a battery of tests to ensure it meets the most demanding real-world conditions. Here's a closer look at our comprehensive testing methodology:

Laboratory Testing: CIB undergoes rigorous laboratory testing to measure key performance metrics. This includes evaluating adhesion strength, flexibility, and chemical resistance. Our team also conducts accelerated corrosion testing to simulate years of exposure to harsh environments.

Neutral Salt Spray (NSS) Testing: This industry-standard test exposes CIB to a continuous mist of salt water, replicating the harsh conditions found in coastal areas. CIB demonstrably surpasses the required standards, offering over 5+ years of protection against neutral salt spray corrosion. This translates to a significant extension of your HVAC unit's lifespan.

Independent Testing: CIB's performance is further validated through independent testing by reputable laboratories. This external verification provides an unbiased assessment of the coating's effectiveness.

BEYOND THE LAB: Real-World Performance

CIB's testing doesn't stop at the laboratory. We actively seek out opportunities to test the coating in real-world applications across various climates and industries. This allows us to gather valuable data on CIB's long-term performance and effectiveness in diverse environments.

By undergoing this rigorous testing regime, CIB provides you with the peace of mind that comes from knowing your HVAC unit is protected by a scientifically proven and field-tested solution. CIB stands the test of time, ensuring your investment is safeguarded for years to come.

THE POWER OF WATER-BASED POLYMERIC TECHNOLOGY

Coat It Blue leverages cutting-edge water-based polymeric coating technology. Here's how it sets itself apart:

Environmental Responsibility: Unlike solvent-based coatings, CIB is formulated with water as the primary carrier. This significantly reduces the product's environmental impact, minimizing harmful VOC (volatile organic compound) emissions and promoting a healthier environment for technicians and building occupants.

Safety Advantage: Solvent-based coatings often contain harsh chemicals that pose safety hazards during application and storage. CIB's water-based formula eliminates this concern, creating a safer work environment for HVAC contractors and reducing potential health risks.

Application Ease: The self-etching properties of CIB's polymeric coating simplify application. The coating creates a strong bond with the metal surface without requiring harsh primers or extensive surface preparation, streamlining the maintenance process for technicians.

Self-Etching Formula: CIB eliminates the need for separate primers. The coating itself creates a microscopic etch on the metal surface, ensuring excellent adhesion for long-lasting protection.

Traditionally, preparing a metal surface for a coating application often involves a multi-step process that includes cleaning, sanding, and applying a separate primer. This primer creates a microscopic texture on the surface, which helps the coating bond more effectively. However, primers can be messy, time-consuming to apply, and may contain harmful solvents.

COAT IT BLUE'S SELF-ETCHING FORMULA eliminates the need for a separate primer, streamlining the application process and reducing prep time. The coating itself is formulated to achieve a microscopic etch on the metal surface during application. This etch creates a slightly roughened texture that significantly increases the surface area for the coating to bond to. Imagine interlocking your fingers with someone – the greater the surface area in contact, the stronger the hold. Similarly, the increased surface area created by the etch allows CIB to achieve exceptional adhesion to the metal surface.

This strong bond is crucial for long-lasting protection, ensuring the coating stays firmly in place and protects your HVAC unit from corrosion for years to come.

Here are some additional benefits of the self-etching formula:

Reduced Labor Costs: Eliminates the need for a separate priming step, saving time and labor costs during application.
Improved Efficiency: Streamlines the application process, allowing technicians to complete the job faster.
Versatility: The self-etching formula works effectively on various clean, dry metal surfaces commonly found in HVAC units.

Section 3:

The Coat It Blue Advantage: A Streamlined On-Site Application Process

One of the most significant advantages of Coat It Blue (CIB) is its on-site application.

Unlike traditional methods that require dismantling components or off-site application, CIB empowers HVAC contractors to deliver superior corrosion protection directly at your location. This section will guide you through the streamlined application process of CIB, ensuring a smooth and efficient experience.

Preparing for CIB Application

Before applying CIB, proper preparation is key for optimal results. Here's a breakdown of the essential steps:

1. **Turn Off the Unit:** Ensure the HVAC&R unit is completely powered off to prevent electrical hazards during application.

2. **Filter Media Removal:** Remove the filtration media from the unit to provide clear access to the coils for coating.

3. **Cover Necessary Parts:** Protect sensitive components like the fan motor and sensors with a tarp to prevent overspray.

4. **Thorough Cleaning:** Clean the coils thoroughly using a recommended cleaner like Vapco's Quad Power. This removes debris, dirt, and existing corrosion that could compromise the adhesion of CIB.

Choosing the Right CIB Container and Application Method

CIB offers a variety of container sizes to cater to your specific needs. Here's a quick guide to selecting the appropriate option:

- **CIB-1 & CIBA-1:** These 1-gallon containers and touch-up aerosols are ideal for smaller units or maintenance applications.
- **CIB-5 & CIRA-1 (Liquid):** The 5-gallon containers and cleaning liquids are perfect for mid-sized projects and cleaning equipment.
- **CIB-55:** This 55-gallon drum offers a cost-effective solution for large-scale projects, ideal for commercial applications.
- **CIB-SC & CIB-LC:** These 10 lb and 30 lb cylinders are suitable for industrial use with compatible spray equipment.

The application method depends on the chosen container size:

Liquid CIB (CIB-1, CIB-5, CIB-55): Use an appropriate airless spray gun, such as the Wagner W180P or Flexio 585, for even application. For micro-channel coils, consider the Atomex HSP-1 for better penetration.

CIBA-1 Touch Up Aerosol: This is ideal for quick touch-ups on existing CIB applications. Shake the can well and spray directly onto the area following a parallel motion with the fins.

APPLYING THE CIB COATING

Here are the general steps for applying CIB, applicable to both spray gun and aerosol methods:

1. **Maintain a Safe Distance:** Hold the spray gun or aerosol can 4-6 inches away from the coil surface for optimal coverage.
2. **Start at the Top:** Begin spraying from the top of the coil and work your way down in parallel motions with the fins. Ensure even coverage across the entire coil surface, including end plates and tube ends.
3. **Apply Light Coats:** Apply two thin coats of CIB per side, allowing each coat to partially dry before applying the next. This ensures proper penetration and prevents dripping.
4. **Apply to Both Sides (if possible):** Whenever possible, apply CIB to both sides of the coils for comprehensive protection.

Curing Time: *Allow the CIB coating to dry completely for 4-6 hours before turning the HVAC unit back on. Environmental factors can affect cure time, so consult the product data sheet for specific recommendations.*

CLEANING UP AFTER APPLICATION

Immediately clean up any overspray or spills on surrounding areas using Vapco's Coat It Clean Up to prevent staining.

Properly dispose of used rags and empty containers according to local regulations.

SAFETY PRECAUTIONS

- While CIB is a safe and environmentally friendly product, it's important to follow recommended safety precautions:
- Wear appropriate personal protective equipment (PPE) such as gloves, safety glasses, and a respirator during application.
- Ensure proper ventilation in the work area to avoid inhaling overspray.
- Do not apply CIB near open flames or sources of ignition.
- Always refer to the product data sheet and safety instructions for detailed information on proper handling and storage.

By following these steps and safety precautions, you can ensure a smooth and successful application of CIB for your HVAC unit.

Chapter 4:

A Long-Term Investment: The Benefits of Coat It Blue

Investing in Coat It Blue (CIB) goes beyond immediate protection; it's a strategic decision that delivers significant long-term benefits for your HVAC&R unit.

Let's explore the compelling advantages that make CIB a wise investment for both commercial and residential applications.

Financial Advantages: Saving Money Through Long-Term Protection
CIB offers a range of financial benefits that translate to substantial cost savings over time:

Extended Unit Lifespan: Corrosion is the leading cause of premature failure in HVAC&R units. CIB's superior protection against corrosion significantly extends the lifespan of your unit, potentially saving you thousands of dollars on replacement costs in the long run.

Reduced Repair Needs: By preventing corrosion, CIB minimizes the need for frequent repairs and maintenance calls. This translates to lower service costs and less disruption to your daily operations or home environment.

Improved Energy Efficiency: Corrosion can impede heat transfer, reducing the efficiency of your HVAC&R unit and leading to higher energy bills. CIB maintains optimal heat exchanger performance, resulting in significant energy savings over the years.

Environmental Responsibility: A Sustainable Choice

CIB IS A CHAMPION OF ENVIRONMENTAL RESPONSIBILITY

Water-Based Formula: Unlike solvent-based coatings, CIB utilizes a water-based formula that minimizes VOC emissions. This reduces your environmental impact and promotes a healthier work environment for technicians.
Reduced Waste: By extending the lifespan of your HVAC unit and minimizing the need for replacements, CIB helps reduce waste generation associated with discarded units and old coatings.
Safe for Indoor Air Quality: CIB's low-odor formula minimizes the risk of harmful chemicals impacting indoor air quality, especially important in residential settings.
Peace of Mind: Confidence in Peak Performance

CIB provides peace of mind knowing your HVAC&R unit is optimally protected:

Unmatched Corrosion Resistance: CIB's rigorous testing and proven performance ensure your unit is shielded from the damaging effects of corrosion for years to come.
Long-Lasting Protection: With a lifespan exceeding 5+ years against neutral salt spray corrosion, CIB offers lasting protection that minimizes the need for reapplication.
Enhanced System Reliability: By safeguarding your unit from corrosion, CIB promotes reliable operation and reduces the risk of unexpected breakdowns, ensuring consistent comfort in your home or optimal climate control in your commercial space.

This guide has provided a comprehensive overview of Coat It Blue, from its innovative technology and on-site application process to its long-term benefits. CIB represents a paradigm shift in HVAC protection, offering a safe, effective, and environmentally friendly solution for safeguarding your investment and ensuring peak performance for years to come. Contact us today to learn more about how Coat It Blue can transform the way you protect your HVAC unit.

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Investing in the Future with Coat It Blue

Choosing Coat It Blue is an investment in the future of your HVAC system. It's a financially sound decision that translates to significant cost savings, minimizes environmental impact, and provides peace of mind with long-lasting protection. Whether you're a homeowner seeking reliable comfort or a business owner focused on operational efficiency, CIB offers a compelling solution.

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