

Safety Steps and Procedures To Follow Prior To Applying Cor-Ban® 22:

Refer to the **safety data sheet (SDS)**, **technical data sheet (TDS)**, and **label** prior to applying **Cor-Ban® 22** if you have any questions about the product.

Always wear gloves, protective clothing, and protective eyewear to prevent **Cor-Ban® 22** from making contact with the skin and eyes.

Make sure there is proper airflow in the area where **Cor-Ban® 22** will be applied. Always wear a proper mask, especially when working with the atomized version of **Cor-Ban® 22** to prevent the inhalation of fumes from that product.

Avoid direct exposure to the propellant in the **Cor-Ban® 22** aerosol as it may cause injury to the skin including frostbite.

Make sure there are no sparks, open flames, or other combustion sources in the area where **Cor-Ban® 22** will be applied.

Ensure that any primers and other coatings are cured before applying **Cor-Ban® 22**.

Prior to applying **Cor-Ban® 22**, always cure sealants according to the instructions established by the manufacturer.

Minor surface imperfections, such as chipped and missing paint or primer and minor surface corrosion can be coated as long as the substrate is structurally sound and follow up inspections for those surfaces are performed periodically.

Have adequate lighting available to see where **Cor-Ban® 22** is being applied and to inspect areas for contamination and rework prior to applying **Cor-Ban® 22**.

Vacuum and **wipe** surfaces so that moisture and other foreign material that is on the surface can be **removed**. These surfaces can be **cleaned** with the following aliphatic naphtha based wipe solvents, such as **Sur-Prep® 3160**, **Sur-Prep® 3167**, and **D-5640NS/ZC-640**.



If the sprayed form of **Cor-Ban® 22** shows fisheyes, separations, or anything that prevents it from being homogeneous and free of voids, then the surface is not clean and needs to be **vacuumed** and/or **wiped** again.

Cor-Ban® 22 Features and Benefits:

Cor-Ban® 22 is a long lasting, water displacing, soft, self healing finished, and solvent removable corrosion inhibiting compound that is based on the **Cor-Ban® 27L** formulation, has a highly penetrating formula to deliver the corrosion protection of **Cor-Ban® 27L** into faying surfaces, and is available in paste form as **Cor-Ban® 27L**.

Cor-Ban® 22 is the preferred CIC for routine maintenance and is military approved for stopping corrosion on pre-corroded metal parts.



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Cor-Ban® 22 Features and Benefits (Continued From Page 1):

Cor-Ban® 22 can be applied to corroded areas to prevent further corrosion from occurring, has a low toxicity level, is free of chromates and heavy metals, does not crack or flake up to to **-60°F (-51°C)**, and can last **>4000 hours** in **salt spray environments**.

Cor-Ban® 22 provides additional barrier protection for corrosion prone internal steel bores of horizontal pivot shafts and landing gear bogies and has a film that is detectable and non-sagging.

Areas To Mask Prior To Applying Cor-Ban® 22:

Mask areas that will not be coated with **Cor-Ban® 22** , such as:

- * Electrical Connectors
- * Pins and Joints In Sliding Surface Contact
- * Control Cables
- * Pulley and Quadrant Cable Grooves
- * Bushing and Bearings For All Types, which includes lined Teflon
- * Silicone or Rubber Seals
- * High Temperature Areas That Are Above 200°F (93°C)
- * Wire Bundles
- * Lubricated Surfaces (i.e Hydraulic Actuator Pistons)
- * Drain Valves
- * Oxygen System Components (i.e. bottles, pressure metering and indicating equipment and connections, ect)



Methods For Applying Cor-Ban® 22:

Cor-Ban® 22 can be applied using:

- * HVLP Guns
- * Airless Spray Equipment
- * Spray Equipment
- * Bulk Application Equipment
- * Aerosol Cans
- * **Formit®** Extension Wands-For use with all **Zip-Chem®** aerosols to reach difficult to access areas, such as stringer edges.
- * **Zip-Chem®** Aerosol Trigger Sprayer For Use With Any **Zip-Chem®** aerosol can

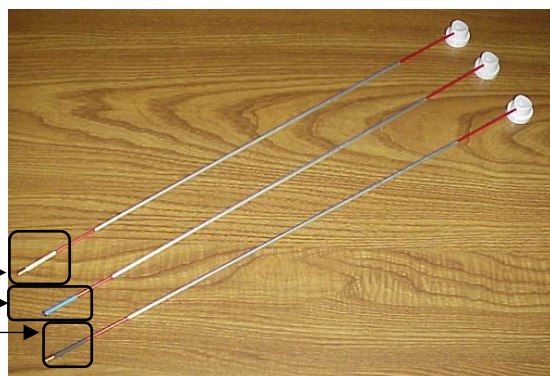
*HVLP Gun



***Formit®** 360° Spray (White Tube) Wand

***Formit®** Fan Spray Spray (Blue Tube) Wand

***Formit®** 180° Spray (Black Tube) Wand



Zip-Chem® Aerosol Trigger Sprayer



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Methods For Applying Cor-Ban® 22 (Continued From Page 2):

*Formit® 360° Spray Application Video



*Formit® Fan Spray Application Video



*Formit® 180° Spray Application Video



Please reach out to a **Zip-Chem®** application experts for tips on how to properly apply **Cor-Ban® 22** for your unique application needs.

1.) HVLP Spray Gun Setup

- A.) Determine the tip size for the gun. The recommended tip size for the gun should be **1.0 mm to 1.5 mm**.
- B.) Set the **air pressure**. This is very important because **Cor-Ban® 22** is applied **thin** so **too much pressure** will result in a **dry spray** and texture of **Cor-Ban® 22** while **too little pressure** will result in a **poor atomization** and **orange peeling** of **Cor-Ban® 22**.
- C.) If you see texture in the spray of **Cor-Ban® 22**, then increase the **air pressure** of your **HVLP gun**. If you see an **overspray cloud** of **Cor-Ban® 22**, then decrease the **air pressure** slightly. The proper spray pattern for **Cor-Ban® 22** should be a **slightly wet pass** with **no flooding or sagging** because **thinly applied products** like **Cor-Ban® 22** can run very fast.
- D.) One pattern that should be used when using the **HVLP gun** to apply **Cor-Ban® 22** is the **fan pattern** because it uses a **full wide fan spray** which provides better consistency and leveling when applying **Cor-Ban® 22** with the **HVLP spray guns**.
- E.) The **air pressure** when the trigger is pulled for the gun should be **20–30 PSI** even though most guns specify **10 PSI** at the **air cap**.
- F.) Always set the pressure with the **trigger fully pulled** because the **pressure drops under flow**.
- G.) Close off the **air** and **fluid adjustment knobs**.
- H.) Slowly open the **air adjustment knob** with the **trigger pulled**.
- I.) Open the **fluid adjustment knob** slowly until you see a **fine mist** from the **air cap**.
- J.) Continue to fine tune the settings until the desired spray pattern is achieved.

HVLP Spray Gun



Airverter HVLP Spray Gun



Methods For Applying Cor-Ban® 22 (Continued From Page 3):

2.) Air Assisted Spray Gun Setup

Air Assisted Spray Gun

- A.) Determine the tip size for the gun. The recommended tip size for the gun should be **1.0 mm to 1.5 mm**.
- B.) For **pressure settings**, use the **lowest pressure** possible so that **Cor-Ban® 22** can be spray applied as a **clean fan** with the width of the spray being shaped like a **fan**.
- C.) Slowly increase the **pressure** to the gun until the **fan spray pattern** of **Cor-Ban® 22** is fully developed and even and there are no **fingers** or **tails** on the edges of the spray equipment. If you hear a **harsh hissing noise** or see **fogging** in the spraying of the **Cor-Ban® 22**, then the **pressure** of the **air assisted spray gun** is **too high**. None of these observations should occur because **thin materials** like **Cor-Ban® 22** atomize very easily.
- D.) Set the **pump ratio** of the equipment to a range of **20:1 to 30:1**.
- E.) Setup the following parts for the **airless spray equipment** below.
*Displacement Pump With A Positive Piston Type
*Stainless Steel Filter With A High Pressure With 200-300 mesh element
- F.) Maintain your distance of the gun from the surface as the distances between **air assisted spray guns** and other spray methods can vary. A good distance to follow for **air assisted spray guns** is about **12" or more**. If you spray apply **Cor-Ban® 22** at a distance closer than **12"**, then there will be a heavy buildup of **Cor-Ban® 22**, tiger stripping of material from the surface where the **Cor-Ban® 22** was applied, and a variation in the gloss of the **Cor-Ban® 22**.
- G.) Consider the passing speed of **Cor-Ban® 22** because the output of **Cor-Ban® 22** from **air assisted spray guns** can vary between other spray methods. Therefore, you may need to move faster or slower than other spray methods, such as **HVLP guns**.
- H.) The **Cor-Ban® 22** should be spray applied as a **smooth continual pass** with a **50% overlap**.



3.) Airless Spray Setup

Airless Spray Equipment

- A.) Determine the tip size for the gun. The recommended tip size for the gun should be **1.0 mm to 1.5 mm**.
- B.) For **pressure settings**, use the **lowest pressure** possible so that **Cor-Ban® 22** can be spray applied as a **clean fan** with the width of the spray being shaped like a **fan**. The setup of **airless spray equipment** varies based on the size and type of gun that is being used but a good starting point for the **pressure** of the **airless spray gun** should be around **900-1200 PSI**.
- C.) Slowly increase the **pressure** to the gun until the **fan spray pattern** of **Cor-Ban® 22** is fully developed and even and there are no **fingers** or **tails** on the edges of the spray equipment. If you hear a **harsh hissing noise** or see **fogging** in the spraying of the **Cor-Ban® 22**, then the **pressure** of the **airless spray gun** is **too high**. None of these observations should occur because thin materials like **Cor-Ban® 22** atomize very easily.
- D.) Set the **pump ratio** of the equipment to a range of **20:1 to 30:1**.
- E.) Setup the following parts for the **airless spray equipment** below.
*Displacement Pump With A Positive Piston Type
*Stainless Steel Filter With A High Pressure With 200-300 mesh element



Methods For Applying Cor-Ban® 22 (Continued From Page 4):

Airless Spray Setup (Continued From Page 4)

- F.) Maintain your distance of the gun from the surface as the distances between **airless spray guns** and other spray methods can vary. A good distance to follow for **airless spray guns** is about **12" or more**. If you spray apply **Cor-Ban® 22** at a distance closer than **12"**, then there will be a heavy buildup of **Cor-Ban® 22**, tiger stripping of material from the surface where the **Cor-Ban® 22** was applied, and a variation in the gloss of the **Cor-Ban® 22**.
- G.) Consider the passing speed of **Cor-Ban® 22** because the output of **Cor-Ban® 22** from **airless spray guns** can vary between other spray methods. Therefore, you may need to move faster or slower than other spray methods, such as **HVLP guns**.
- H.) The **Cor-Ban® 22** should be spray applied as a **smooth continual pass** with a **50% overlap**.

4.) Cor-Ban® 22 5 Gallon (18.9 Liter) Cart Sprayer Setup

- A.) Determine the tip size for the gun. The recommended tip size for the gun should be **1.0 mm to 1.5 mm**.
- B.) For **pressure settings**, use the **lowest pressure** possible so that **Cor-Ban® 22** can be spray applied as a **clean fan** with the width of the spray being shaped like a **fan**. The setup of **airless spray equipment** varies based on the size and type of gun that is being used but a good starting point for the **pressure** of the **airless spray gun** should be around **900-1200 PSI**.
- C.) Slowly increase the **pressure** to the gun until the **fan spray** pattern of **Cor-Ban® 22** is fully developed and even and there are no **fingers** or **tails** on the edges of the spray equipment. If you hear a **harsh hissing noise** or see **fogging** in the spraying of the **Cor-Ban® 22**, then the **pressure** of the **airless spray gun** is **too high**. None of these observations should occur because thin materials like **Cor-Ban® 22** atomize very easily.
- D.) Set the **pump ratio** of the equipment to a range of **20:1 to 30:1**.
- E.) Setup the following parts for the **airless spray equipment** below.
*Displacement Pump With A Positive Piston Type
*Stainless Steel Filter With A High Pressure With 200-300 mesh element
- F.) Maintain your distance of the gun from the surface as the distances between **airless spray guns** and other spray methods can vary. A good distance to follow for **airless spray guns** is about **12" or more**. If you spray apply **Cor-Ban® 22** at a distance closer than **12"**, then there will be a heavy buildup of **Cor-Ban® 22**, tiger stripping of material from the surface where the **Cor-Ban® 22** was applied, and a variation in the gloss of the **Cor-Ban® 22**.
- G.) Consider the passing speed of **Cor-Ban® 22** because the output of **Cor-Ban® 22** from **airless spray guns** can vary between other spray methods. Therefore, you may need to move faster or slower than other spray methods, such as **HVLP guns**.
- H.) The **Cor-Ban® 22** should be spray applied as a **smooth continual pass** with a **50% overlap**.

5 Gallon Cart Sprayer



5.) Electro-Static Spray Gun Setup

- A.) Minimize the flow of **Cor-Ban® 22** for the required **coating speed** and **film thickness**.
- B.) Minimizing the target distance of spraying **Cor-Ban® 22**.
- C.) Ensure that the **Cor-Ban® 22** to be sprayed has a very high **resistivity** of at least **>1 mega-ohm**.
- D.) Attach charging unit to the gun and object to be sprayed with **Cor-Ban® 22**.

Electro-Static Spray Gun



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Methods For Applying Cor-Ban® 22 (Continued From Page 5):

Electro-Static Spray Gun Setup (Continued From Page 5)

- E.) Gradually increase in-line **air pressure** so that the spray provides proper **Cor-Ban® 22** build at the required **coating speed** and ensure that the pressure does not exceed **100 psi**.
- F.) **Fluid pressure** is typically **400-800 psi** so make sure it is set to that **psi range**.
- G.) Turn on **charging unit** and begin spraying **Cor-Ban® 22**.

Cor-Ban® 22 Appearance Standards:

Cor-Ban® 22 should be continuous and free of voids. Runs drips, sags, etc, are allowed provided that the drain holes and cross drains for where **Cor-Ban® 22** should drain out of are not blocked. If the drain holes or cross drains become blocked, then wipe up the excess **Cor-Ban® 22** using clean, dry gauze or rags.

When applied properly, **Cor-Ban® 22** will exhibit a waxy, self-healing, and water displacing coating that lasts a long time.

Areas Where Cor-Ban® 22 Should Be Applied:

Cor-Ban® 22 should be applied on:

- * Pre-Existing Corroded Areas and Areas That Are Prone To Corrosion
- * Landing Gear Equipment Not Primed Or Top Coated (Boggies, ect)
- * Hardware Not Primed Or Top Coated (Includes Miscellaneous)
- * Metal Parts (Steel Bores of Horizontal Pivot Shafts)
- * Lavatories
- * Seat Tracks
- * Floor Beams
- * Anchor Nuts
- * Threaded Fasteners



← Floor Beams



← Lavatory



← Corroded Areas

Procedures For Applying Cor-Ban® 22:

Focus the application process of **Cor-Ban® 22** on all faying surfaces to ensure joint penetration before coating an entire area and moving on to the next section.

The **Formit® 18-360 wand** can be used to internally coat box and tube sections with the **Cor-Ban® 22 aerosol**.

Inspect the surface for proper coating under stringers, formers, and other structures that are not in the line of sight.



Quickly **wipe up** extremely thick areas or puddles with solvents that are listed in the removal instructions below.



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Methods For Removing Cor-Ban® 22:

Remove **Cor-Ban® 22** can be removed by wiping off that excess material and flushing the part or wiping that part with a rag that is soaked with an aliphatic naphtha based wipe solvents or its equivalents. **Cor-Ban® 22** can also be removed with a rag soaked with corrosion preventive compound/corrosion inhibiting compound removers, such as **Sur-Prep® 3160**, **Sur-Prep® 3167**, **D-5640NS/ZC-640**, and **Zip-Strip™ 125M**.



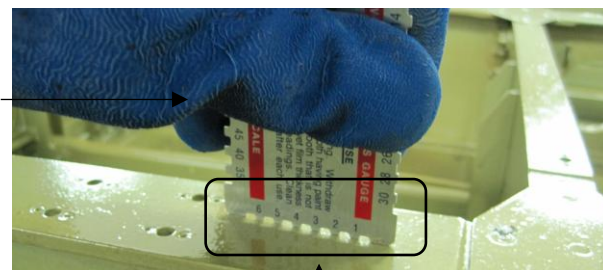
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Thickness For Cor-Ban® 22 Including Tips For Measuring That Thickness:

Cor-Ban® 22 should have a **wet film thickness** of **1.0 to 1.5 mils (25 to 38 microns)**. For measuring the **wet film thickness** of Cor-Ban® 22, use protection for your hand so that you can **push Zip-Chem®'s Wet Film Thickness Gauge** as shown below into the Cor-Ban® 22 material via hand after the Cor-Ban® 22 has been allowed to **flow** for a **few minutes**.



Wet Film Thickness Gauge Fingers

The **thickness** of the Cor-Ban® 22 can be determined by the **visible tracks** in the **wet film** that are left by the **gauge fingers** of the **Wet Film Thickness Gauge** as shown in the picture to the **right** of the **Wet Film Thickness Gauge** image. The **dry film thickness** of Cor-Ban® 22 may be verified using **paint thickness instruments**.

Cor-Ban® 22 Product Pictures and Zip-Chem® Product Packaging Part Numbers:

Cor-Ban® 22 (Liquid Form For Cor-Ban® 27L)

- *Case of 12 of 16 fl oz (473 mL) Aerosols-**007047**
- *Case of 24 of 4 fl oz (118 mL) Aerosols-**103734**
- *Case of 4 each Gallon (4 each of 3.8L) Cans-**009400**
- *5 Gallon (18.9 Liter) Pails-**007049**
- *55 Gallon (208 Liter) Drum-**007050**
- *Specialized forms of packaging available upon request

Protective Clothing | Protective Eyewear | Gloves

Bulk Application Equipment | Spray Application Equipment

Zip-Strip™ 125M

- *Case of 12 of 16 fl oz (473 mL) Aerosols-**102614**
- *Case of 4 each Gallon (4 each of 3.8L) Cans-**102608**
- *5 Gallon (18.9 Liter) Pails-**102609**
- *55 Gallon (208 Liter) Drum-**102610**
- *Specialized forms of packaging available upon request

Wet Film Thickness Gauge

***100266**

Cor-Ban® 27L (Paste Form For Cor-Ban® 22)

- *Case of 12 of 9 fl oz (148 mL) Tubes-**009402**
- *Case of 12 of 6 fl oz (177 mL) Semco® Cartridges-**009403**
- *Case of 12 of 14 fl oz (414 mL) Grease Cartridges-**009873**
- *Case of 12 each Quart (946 mL)-**009405**
- *Case of 12 each Pint (473 mL) Cans-**009404**
- *Case of 4 each Gallon (4 each of 3.8 Liter) Cans-**009406**
- *5 Gallon (18.9 L) Pail-**002099**
- *Specialized forms of packaging upon request

Vacuum | Curing Materials and Devices | Proper Wiping Devices

Sur-Prep® 3167

- *Case of 12 of 16 fl oz (473 mL) Aerosols-**103765**
- *Case of 4 each Gallon (4 each of 3.8L) Cans-**103762**
- *5 Gallon (18.9 Liter) Pails-**103763**
- *55 Gallon (208 Liter) Drum-**103764**
- *Specialized forms of packaging available upon request

Zip® Chem Aerosol Trigger Sprayer

***010040**

Formit® Wands (12 Assemblies Per Package)

- *Formit®-18-Fan-006224
- *Formit®-18-180-006226
- *Formit®-18-360-006227
- *Formit®-18-STD-FOG-008352
- *Formit®-18-90-FOG-008353
- *Formit®-29-360-101321

*Formit®-36-360-009131

*Formit®-48-360 with metal sleeve-**009132**

*Formit®-48-360 without metal sleeve-**100424**

*Formit®-48-Fan-008460

*Formit® Sample Pack (3 each of Formit®-18-Fan, Formit®-18-180, Formit®-18-360, Formit®-18-STD-FOG-100107)



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Cor-Ban® 22 Product Pictures and Zip-Chem® Product Packaging Part Numbers (Continued From Page 8):

D-5640NS/ZC-640

- *Case of 12 of 16 fl oz (473 mL) Aerosols (**D-5640NS**)-**002070**
- *Case of 4 each Gallon (4 each of 3.8L) Cans (**ZC-640**)-**009430**
- *5 Gallon (18.9 Liter) Pails (**ZC-640**)-**002155**
- *55 Gallon (208 Liter) Drum (**ZC-640**)-**008181**
- *Special forms of packaging available upon request (**ZC-640**)

Sur-Prep® 3160

- *Case of 12 of 16 fl oz (473 mL) Aerosols-**010938**
- *Case of 4 each Gallon (4 each of 3.8L) Cans-**008578**
- *5 Gallon (18.9 Liter) Pails-**008579**
- *55 Gallon (208 Liter) Drum-**008580**
- *Case of 6 Canisters of Towelettes-**100026**
- *Case of 100 Individual Towelettes-**011844**
- *Specialized packaging forms for customers

Aliphatic Naphtha Based Wipe Solvents or the Equivalent

Lighting and Inspecting Devices | Proper Mask | Ventilation Equipment | Paint Thickness Instruments | Masking Tape

Spill Containment Vessels and other proper devices for collecting material overruns and spills



← *1 Gallon (3.8 Liter) Cans



← *16 Fluid Ounce (473 mL) Aerosol NSN 6850-01-523-4290

Additional Cor-Ban® 22 NSN: 6850-01-531-7352 (5 Gallon (18.9 Liter) Pail)

Cor-Ban® 27L NSN's: 6850-01-469-7645 (Quart (946 mL)), 6850-01-531-7357 (5 fl oz. (148 mL) Tube), 6850-01-531-7355 (6 fl oz. (177 mL) Semco® Cartridge)

Sur-Prep® 3160 NSN: 6850-01-633-9843 (16 fl oz (473 mL) Aerosol); **D-5640NS NSN:** 8030-01-597-6958 (16 fl oz (473 mL) Aerosol)

Zip-Strip™ 125M NSN's: 6850-01-695-8514 (5 Gallon (18.9 Liter) Pail), 6850-01-707-8887 (16 fl. oz (473 mL) Aerosol)

Formit® NSN's: 4730-01-612-9914, NSN: 4730-01-661-8773 (**Formit®-18-Fan**); 6850-01-492-2942 (**Formit®-18-360**); 4730-01-632-0156 (**Formit®-18-STD-FOG**); 1560-01-658-8943 (with metal sleeve), 4730-01-659-5461 (without metal sleeve) (**Formit®-48-360**); 4730-01-632-0157 (**Formit®-48-Fan**)

For application questions regarding **Cor-Ban® 22**, contact **Zip-Chem® Aviation Products** at (1) 408 782 2335 or zipchem@addevmaterials.com.



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