Cor-Ban® 50 Instruction Manual

Safety Steps and Procedures To Follow Prior To Applying Cor-Ban® 50:

Always refer to the safety data sheet (SDS), technical data sheet (TDS), and label prior to applying **Cor-Ban® 50** if you have any questions about this product.

Always wear gloves, protective clothing, and eyewear to prevent **Cor-Ban® 50** from making contact with the skin and eyes.

Make sure there is proper airflow in the area where **Cor-Ban® 50** will be applied and wear a respirator to prevent the inhalation of fumes from **Cor-Ban® 50** especially if the ventilation in the area where **Cor-Ban® 50** will be applied is insufficient.

Make sure there are no sparks, open flames, or other combustion sources in the area where **Cor-Ban® 50** will be applied.

Cure sealants to recommendations set by the manufacturer prior to applying **Cor-Ban® 50**.

Vacuum and wipe surfaces so that moisture and other foreign material that is on them.

Clean surfaces with the following aliphatic naphtha based wipe solvents, such as **Sur-Prep® 3160**, **Sur-Prep® 3167**, and **D-5640NS/ZC-640**.

Do not use Isopropyl alcohol and acetone to wipe and clean the surface.

If the sprayed form of **Cor-Ban® 50** 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.

Areas To Mask Prior To Applying Cor-Ban® 50:

Mask areas that will not to be coated, such as:

* Electrical Connectors
* Pins In Sliding Surface Contact
* 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
* Wire Bundles
* Lubricated Surfaces
* Drain Valves
* Oxygen System Components (i.e. Bottles, Pressure Metering and Indicating Equipment and Connections)

Cor-Ban® 50 Instruction Manual

Cor-Ban® 50 Product Information and Benefits:

Cor-Ban® 50 is a dark brown, thixotropic liquid corrosion inhibiting compound intended for heavy duty use and is a solvent cut-back formulation which dries in approximately **two hours**.

Cor-Ban® 50 forms a firm, amber, transparent film which will not flow below **175˚F (79˚C)**.

Cor-Ban® 50 is free of chromates and heavy metals, has a low toxicity level, and is non-corrosive.

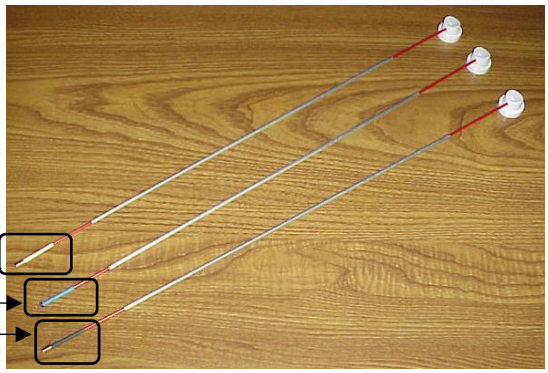
Cor-Ban® 50 protects painted and unpainted metal surfaces and wets the surfaces of most commonly used metals.

Methods For Applying Cor-Ban® 50:

Use the following equipment for applying **Cor-Ban® 50** in the temperature range of **50˚F to 100˚F (10˚C to 38˚C)**.

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

HLVP Gun



***Formit® 360˚ Spray (White Tube) Wand**
***Formit® Fan Spray Spray (Blue Tube) Wand**
***Formit® 180˚ Spray (Black Tube) Wands**

Zip-Chem® Aerosol Trigger Sprayer

Formit® 360˚ Spray Demonstration Video

Formit® Fan Spray Demonstration Video

Formit® 180˚ Spray Demonstration Video

ZIP® CHEM Part of & ADDEV MATERIALS

Cor-Ban® 50 Instruction Manual

Methods For Applying Cor-Ban® 50 (Continued From Page 2):

1.) HVLP Spray Gun Setup

HVLP Spray Gun

A.) Set the air pressure. This is very important because if there is too much pressure, then the texture and spray of **Cor-Ban® 50** will be dry. Too little pressure however, results in a poor atomization and orange peeling of **Cor-Ban® 50**.

B.) If you see texture in the spray of **Cor-Ban® 50**, then increase the air pressure of your **HVLP gun**. If you see an overspray cloud of **Cor-Ban® 50**, then decrease the air pressure slightly. The proper spray pattern for **Cor-Ban® 50** should be a **slightly wet pass** with **no flooding or sagging** because thinly applied products like **Cor-Ban® 50** can run very fast.

C.) One pattern that should be used when using the **HVLP gun** to apply **Cor-Ban® 50** is the **fan pattern** because it uses a **full wide fan spray** which provides better consistency and leveling when applying **Cor-Ban® 50** with the **HVLP spray guns**.

D.) 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.

E.) Always set the pressure with the trigger fully pulled because the pressure drops under flow.

F.) Close off the air and fluid adjustment knobs.

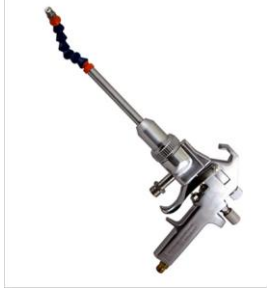
G.) Slowly open the air adjustment knob with the trigger pulled.

H.) Open the fluid adjustment knob slowly until you see a fine mist from the air cap.

I.) Continue to fine tune the settings until the desired spray pattern is achieved.

2.) Air Assisted Spray Gun Setup

Airverter Spray Gun



A.) Determine the tip size for the gun. This is very important especially for a thin material**,** such as **Cor-Ban® 50**.

Note: Do not increase the gun tip size especially to **.015 " or more** when applying **Cor-Ban® 50** because the applied material will exhibit the following characteristics below.

*Too much **Cor-Ban® 50** being applied
***Cor-Ban® 50** runs
*Orange peel in the **Cor-Ban® 50**
*An overspray cloud in the applied **Cor-Ban® 50**

B.) For pressure settings, use the lowest pressure possible so that **Cor-Ban® 50** can be spray applied as a **clean fan** with the width of the spray being shaped like **a fan**. The setup of **air assisted spray gun** varies based on the size and type of gun that is being used but a good starting point for the pressure of the **air assisted spray gun** should be around **900-1200 PSI**.

C.) Slowly increase the pressure of the gun until the **fan spray** pattern of **Cor-Ban® 50** 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® 50**, then the pressure of the **air assisted spray gun** is too high. None of these observations should occur because thin materials like **Cor-Ban® 50** atomize very easily.

D.) Set the pump ratio of the equipment to a range of **70:1 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**

Cor-Ban® 50 Instruction Manual

Methods For Applying Cor-Ban® 50 (Continued From Page 3):

Air Assisted Spray Gun Setup (Continued From Page 3)

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® 50** at a distance closer than **12"**, then there will be a heavy buildup of **Cor-Ban® 50** , tiger stripping of material from the surface where the **Cor-Ban® 50** was applied and a variation in the gloss of the **Cor-Ban® 50**.

G.) Consider the passing speed of **Cor-Ban® 50** because the output of **Cor-Ban® 50** 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® 50** should be spray applied as a **smooth continual pass** with a **50% overlap**.

I.) The table below lists some differences between the **HVLP** spray method and the **air assisted spray gun** methods.

HVLP	Air Assisted Spray Gun
Soft spray of **Cor-Ban® 50**	More aggressive fan spray of **Cor-Ban® 50**
Slow **Cor-Ban® 50** output	Fast output of **Cor-Ban® 50**
Very forgiving when applying **Cor-Ban® 50**	**Cor-Ban® 50** can run quickly
Less overspray bounce of **Cor-Ban® 50**	More fogging potential for **Cor-Ban® 50** than with **HVLP** spray method

3.) Airless Spray Setup

Airless Spray Equipment

A.) Determine the tip size for the gun. This is very important especially for a thin material, such as **Cor-Ban® 50**.

Note: Do not increase the gun tip size especially to **.015 " or more** when applying **Cor-Ban® 50** because the applied material will exhibit the following characteristics below.

*Too much **Cor-Ban® 50** being applied
***Cor-Ban® 50** runs
*Orange peel in the **Cor-Ban® 50**
*An overspray cloud in the applied **Cor-Ban® 50**

B.) For pressure settings, use the lowest pressure possible so that **Cor-Ban® 50** 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 of the gun until the **fan spray** pattern of **Cor-Ban® 50** 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® 50**, then the pressure of the airless spray gun is too high. None of these observations should occur because thin materials like **Cor-Ban® 50** atomize very easily.

D.) Set the pump ratio of the equipment to a range of 7**0:1 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® 50** at a distance closer than **12"**, then there will be a heavy buildup of **Cor-Ban® 50**, tiger stripping of material from the surface where the **Cor-Ban® 50** was applied, and a variation in the gloss of the **Cor-Ban® 50**.

Cor-Ban® 50 Instruction Manual

Methods For Applying Cor-Ban® 50 (Continued From Page 4):

Airless Spray Setup (Continued From Page 4)

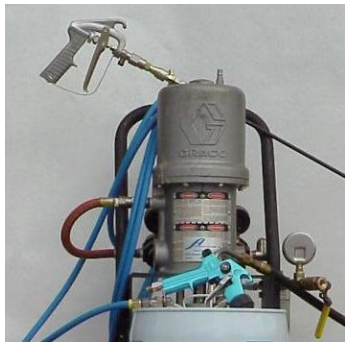
G.) Consider the passing speed of **Cor-Ban® 50** because the output of **Cor-Ban® 50** from **airless spray guns** can vary between other spray methods. Therefore, you may need to move faster or slower than other spray methods, such as **HVLP guns**.

H.) The **Cor-Ban® 50** should be spray applied as a **smooth continual pass** with a **50% overlap**.

I.) The table below lists some differences between the **HVLP** spray method and the **airless spray gun** methods.

HVLP	Airless Spray Gun
Soft spray of **Cor-Ban® 50**	More aggressive fan spray of **Cor-Ban® 50**
Slow **Cor-Ban® 50** output	Fast output of **Cor-Ban® 50**
Very forgiving when applying **Cor-Ban® 50**	**Cor-Ban® 50** can run quickly
Less overspray bounce of **Cor-Ban® 50**	More fogging potential for **Cor-Ban® 50** than with **HVLP** spray method

4.) Cor-Ban® 50 5 Gallon (18.9 Liter) Cart Sprayer Setup



A.) Determine the tip size for the gun. This is very important especially for a thin material such as **Cor-Ban® 50** including thin coatings, such as clears and sealers.

Note: Do not increase the gun tip size especially to **.015 " or more** when applying **Cor-Ban® 50** because the applied material will exhibit the following characteristics below.
*Too much **Cor-Ban® 50** being applied
***Cor-Ban® 50** runs
*Orange peel in the **Cor-Ban® 50**
*An overspray cloud in the applied **Cor-Ban® 50**

B.) For pressure settings, use the lowest pressure possible so that **Cor-Ban® 50** can be spray applied as a **clean fan** with the width of the spray being shaped like **a fan**. The setup of **5 Gallon (18.9 Liter) Cart Sprayer** varies based on the size and type of gun that is being used but a good starting point for the pressure of the **5 Gallon (18.9 Liter) Cart Sprayer** should be around **900-1200 PSI**.

C.) Slowly increase the pressure of the gun until the **fan spray** pattern of **Cor-Ban® 50** 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® 50**, then the pressure of the gun is too high. None of these observations should occur because thin materials like **Cor-Ban® 50** 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 **5 Gallon (18.9 Liter) Cart Sprayer** 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 **5 Gallon (18.9 Liter) Cart Sprayers** 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® 50** at a distance closer than **12"**, then there will be a heavy buildup of **Cor-Ban® 50**, tiger stripping of material from the surface where the **Cor-Ban® 50** was applied, and a variation in the gloss of the **Cor-Ban® 50**.

G.) Consider the passing speed of **Cor-Ban® 50** because the output of **Cor-Ban® 50** from **5 Gallon (18.9 Liter) Cart Sprayers** 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® 50** should be spray applied as a **smooth continual pass** with a **50% overlap**.

Cor-Ban® 50 Instruction Manual

Methods For Applying Cor-Ban® 50 (Continued From Page 5):

Cor-Ban® 50 5 Gallon (18.9 Liter) Cart Sprayer Setup (Continued From Page 5)

I.) The table below lists some differences between the **HVLP** spray method and the **5 Gallon (18.9 Liter) Cart Sprayer** spray methods.

HVLP	Cor-Ban® 50 5 Gallon (18.9 Liter) Cart Sprayer
Soft spray of **Cor-Ban® 50**	More aggressive fan spray of **Cor-Ban® 50**
Slow **Cor-Ban® 50** output	Fast output of **Cor-Ban® 50**
Very forgiving when applying **Cor-Ban® 50**	**Cor-Ban® 50** can run quickly
Less overspray bounce of **Cor-Ban® 50**	More fogging potential for **Cor-Ban® 50** than with **HVLP** spray method

5.) Electro-Static Spray Gun Setup

Electro-Static Spray Gun

A.) Minimize the flow of **Cor-Ban® 50** for the required coating speed and film thickness.

B.) Minimizing the target distance of spraying **Cor-Ban® 50**.

C.) Ensure that the **Cor-Ban® 50** 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® 50**.

E.) Gradually increase in-line air pressure so that the spray provides proper **Cor-Ban® 50** 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® 50**.

It is important to ensure that the **HVLP**, **air assisted**, **airless**, **5 Gallon (18.9 Liter) Cart Sprayer**, or **electrostatic paint gun** for applying **Cor-Ban® 50** are properly setup for the following reasons below.

*Decrease odor, fogging, and mist from the application of **Cor-Ban® 50**
*Increase the transfer efficiency of the **Cor-Ban® 50** from the equipment to the area it needs to be applied to
*Ensure that **Cor-Ban® 50** will be applied according to how it was designed to be applied with respect to **optimum weight to performance balance**

Areas Where Cor-Ban® 50 Should Be Applied:

Cor-Ban® 50 can be applied on metals including painted and unpainted metal surfaces.

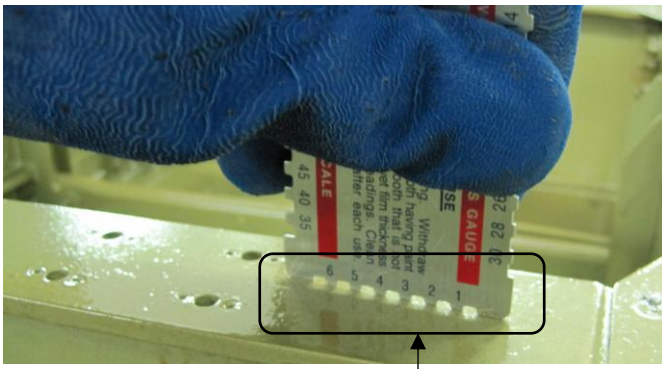
Pretreating Areas Prior To Cor-Ban® 50 Application:

For areas requiring penetration, pretreat areas with **Cor-Ban® 35** and then cover with **Cor-Ban® 50**.

Cor-Ban® 50 Instruction Manual

Coverage For Cor-Ban® 50 and The Measuring Film Thickness of Cor-Ban® 50:

A **gallon** of **Cor-Ban® 50** will cover approximately **800 square feet (74.3 m²)** at a **film thickness** of **1 mil (25 microns)** thick and **one aerosol** of **Cor-Ban® 50** covers approximately **95 ft² (8.8 m²)**. To measure the wet film thickness of **Cor-Ban® 50**, use protection for your hand so that you can push **Zip-Chem®** 's **Wet Film Thickness Gauge** as shown below into the **Cor-Ban® 50** material via hand after the **Cor-Ban® 50** has been allowed to flow for a **few minutes**.



The **thickness** of the **Cor-Ban® 50** can be determined by the **visible tracks** in the wet film that are left by the **gauge fingers** of the **Wet Film Thickness Gauge**. The **dry film thickness** of **Cor-Ban® 50** may be verified using **paint thickness instruments**.

Cor-Ban® 50 Product Pictures, Zip-Chem® Product Packaging Part Numbers, and Other Materials To Purchase:

Cor-Ban® 50
- *16 fl oz (473 mL) Aerosol-**007896**
- *Case of 4 of Gallon (4 each of 8.8 Liter) Cans-**009411**
- *5 Gallon (18.9 Liter) Pails-**007872**
- *55 Gallon (208 Liter) Drums-**007873**
- *Specialized forms of packaging available upon request

Cor-Ban® 35
- *Case of 12 of 16 fl oz (473 mL) Aerosols-004675
- *Case of 12 of 8 oz (227 gram) Brush In Cap (010884)
- *Case of 12 each Quart (946 mL) (009408)
- *Case of 4 each Gallon (4 each of 8.8 Liter) Cans (009409)
- *5 Gallon (18.9 Liter) Pail (002104)
- *55 Gallon (208 Liter) Drum (002105)
- *Special packaging upon request

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 8.8 Liter) 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)**

Respirating Devices | Ventilating Equipment | Wiping Devices

Sur-Prep® 3160
- *Case of 12 of 16 fl oz (473 mL) Aerosols-**010938**
- *Case of 4 each Gallon (4 each of 8.8 Liter) 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 forms of packaging upon request

Sur-Prep® 3167
- *Case of 12 of 16 fl oz (473 mL) Aerosols-**103765**
- *Case of 4 each Gallon (4 each of 8.8 Liter) 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**

Wet Film Thickness Gauge
- ***100266**

Masking Tape | Tin Foil | Gloves | Protective Eyewear | Vacuum

Aliphatic Naphtha Based Wipe Solvents or Equivalents | Spray Equipment

Part of ADDEV MATERIALS

Cor-Ban® 50 Instruction Manual

Cor-Ban® 50 Product Pictures, Zip-Chem® Product Packaging Part Numbers, and Other Materials To Purchase (Continued From Page 7):

Paint Thickness Instruments | Curing Materials and Devices | Lighting Equipment | Bulk Application Equipment | Dipping Equipment

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**)

← 1 Gallon (3.8 Liter) Cans

← 16 Fluid Ounce (473 mL) Aerosol

Cor-Ban® 35 NSN's: 6850-01-492-2932, 8030-01-531-7358 (16 fl oz (473 mL) Aerosols); 8030-01-531-7360 (5 Gallons (18.9 Liter)) 8030-01-615-4737 (Quart (946 mL)); 8030-01-615-4733 (8 oz (227 gram) Brush In Cap)

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)

Formit® NSN's: 4730-01-612-9914, 4730-01-661-8773 (**Formit®-18-Fan**); 6850-01-492-2942 (**Formit®-18-360**); 4730-01-632-0156 (**Formit®-18-STD-FOG**); 6850-01-517-0963 (**Formit®-18-90-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**)