Cor-Ban® 27L Instruction Manual

Safety Steps and Procedures To Follow Prior To Applying Cor-Ban® 27L:

Always refer to the **safety data sheet (SDS)** and **technical data sheet (TDS)** prior to applying **Cor-Ban® 27L** if you have any questions about this product.

Always wear gloves, protective clothing, and protective eyewear to prevent **Cor-Ban® 27L** from making contact with the skin and eyes.

Cure sealants to recommendations set by the manufacturer prior to applying **Cor-Ban® 27L**.

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

Clean surfaces 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® 27L** 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® 27L Features and Benefits:

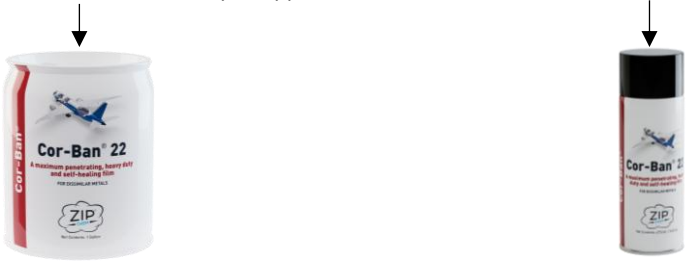
Cor-Ban® 27L is an amber/tan non-drying corrosion inhibiting compound (CIC) for a wide range of temperatures with a thixotropic and buff colored film.

Cor-Ban® 27L exhibits an extremely smooth and uniform paste like consistency without any lumps or grit and has a smooth, non-drying, and even film with excellent corrosion resistance.

Cor-Ban® 27L is non-toxic, user safe, generates a low odor, withstands high ultraviolet exposure in highly corrosive environments, and passes the **lightning strike test**.

Cor-Ban® 27L is approved as a replacement for chromate containing non-curing pastes and is free of **chromate**, **asbestos**, **MoS_2**, **graphite**, and **heavy metals**.

Cor-Ban® 27L is used in the formulation of **Cor-Ban® 22** and a liquid application of it is available as **Cor-Ban® 22**.



6.) Cor-Ban® 27L is available in a Semco® cartridge that fits into a standard pneumatic or ratchet sealant gun that is common in the industry as well as a collapsible tube for manual application and grease cartridges for use with a grease gun.

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Areas To Mask Prior To Applying Cor-Ban® 27L:

1.) Mask areas that will not be coated with **Cor-Ban® 27L**, 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® 27L:

Cor-Ban® 27L can be applied using:
*HVLP Guns
*Airless Spray Equipment
*Spray Equipment
*Bulk Application Equipment
*Spatula or brush at a reasonable **ambient temperature**.

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® 27L** will be dry. Too little pressure however, results in a poor atomization and orange peeling of **Cor-Ban® 27L**.

B.) If you see texture in the spray of **Cor-Ban® 27L**, then increase the air pressure of your **HVLP gun**. If you see an overspray cloud of **Cor-Ban® 27L**, then decrease the air pressure slightly. The proper spray pattern for **Cor-Ban® 27L** is important because thickly applied products like **Cor-Ban® 27L** can run very slowly.

C.) One pattern that should be used when using the **HVLP** gun to apply **Cor-Ban® 27L** is the **fan pattern** because it uses a **full wide fan spray** which provides better consistency and leveling when applying **Cor-Ban® 27L** 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.

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

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Methods For Applying Cor-Ban® 27L (Continued From Page 2):

2.) Air Assisted Spray Gun Setup

Airverter Spray Gun

A.) Determine the tip size for the gun. This is very important especially for a thick material**,** such as **Cor-Ban® 27L**.

Note: Do not increase the gun tip size especially to **.015 " or more** when applying **Cor-Ban® 27L** because the applied material will exhibit the following characteristics below.

*Too much **Cor-Ban® 27L** being applied
***Cor-Ban® 27L** runs
*Orange peel in the **Cor-Ban® 27L**
*An overspray cloud in the applied **Cor-Ban® 27L**

B.) For pressure settings, use the lowest pressure possible so that **Cor-Ban® 27L** 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® 27L** 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® 27L**, then the pressure of the **air assisted spray gun** is too high. None of these observations should occur because thick materials like **Cor-Ban® 27L** can change texture very easily.

D.) Set the pump ratio of the equipment to a range of **60:1 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® 27L** at a distance closer than **12"**, then there will be a heavy buildup of **Cor-Ban® 27L**, tiger stripping of material from the surface where the **Cor-Ban® 27L** was applied, and a variation in the gloss of the **Cor-Ban® 27L**.

G.) Consider the passing speed of **Cor-Ban® 27L** because the output of **Cor-Ban® 27L** 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® 27L** 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® 27L**	More aggressive fan spray of **Cor-Ban® 27L**
Slow **Cor-Ban® 27L** output	Fast output of **Cor-Ban® 27L**
Very forgiving when applying **Cor-Ban® 27L**	**Cor-Ban® 27L** can run quickly
Less overspray bounce of **Cor-Ban® 27L**	More fogging potential for **Cor-Ban® 27L** than with **HVLP** spray method

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Methods For Applying Cor-Ban® 27L (Continued From Page 3):

3.) Airless Spray Setup

Airless Spray Equipment

A.) Determine the tip size for the gun. This is very important especially for a thick material, such as **Cor-Ban® 27L**.

Note: Do not increase the gun tip size especially to **.015 " or more** when applying **Cor-Ban® 27L** because the applied material will exhibit the following characteristics below.

*Too much **Cor-Ban® 27L** being applied
***Cor-Ban® 27L** runs
*Orange peel in the **Cor-Ban® 27L**
*An overspray cloud in the applied **Cor-Ban® 27L**

B.) For pressure settings, use the lowest pressure possible so that **Cor-Ban® 27L** 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® 27L** 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® 27L**, then the pressure of the airless spray gun is too high. None of these observations should occur because thick materials like **Cor-Ban® 27L** can change texture very easily.

D.) Set the pump ratio of the equipment to a range of **60:1 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® 27L** at a distance closer than **12"**, then there will be a heavy buildup of **Cor-Ban® 27L**, tiger stripping of material from the surface where the **Cor-Ban® 27L** was applied, and a variation in the gloss of the **Cor-Ban® 27L**.

G.) Consider the passing speed of **Cor-Ban® 27L** because the output of **Cor-Ban® 27L** 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® 27L** 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® 27L**	More aggressive fan spray of **Cor-Ban® 27L**
Slow **Cor-Ban® 27L** output	Fast output of **Cor-Ban® 27L**
Very forgiving when applying **Cor-Ban® 27L**	**Cor-Ban® 27L** can run quickly
Less overspray bounce of **Cor-Ban® 27L**	More fogging potential for **Cor-Ban® 27L** than with **HVLP** spray method

Cor-Ban® 27LInstruction Manual

Methods For Applying Cor-Ban® 27L (Continued From Page 4):

4.) Cor-Ban® 27L 5 Gallon (18.9 Liter) Cart Sprayer Setup

A.) Determine the tip size for the gun. This is very important especially for a thick material such as **Cor-Ban® 27L**.

Note: Do not increase the gun tip size especially to **.015 " or more** when applying **Cor-Ban® 27L** because the applied material will exhibit the following characteristics below.

*Too much **Cor-Ban® 27L** being applied
***Cor-Ban® 27L** runs
*Orange peel in the **Cor-Ban® 27L**
*An overspray cloud in the applied **Cor-Ban® 27L**

B.) For pressure settings, use the lowest pressure possible so that **Cor-Ban® 27L** can be spray applied as a **clean fan** with the width of the spray being shaped like **a fan**. The setup of 9 **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® 27L** 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® 27L**, then the pressure of the gun is too high. None of these observations should occur because thick materials like **Cor-Ban® 27L** can change texture 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® 27L** at a distance closer than **12"**, then there will be a heavy buildup of **Cor-Ban® 27L**, tiger stripping of material from the surface where the **Cor-Ban® 27L** was applied, and a variation in the gloss of the **Cor-Ban® 27L**.

G.) Consider the passing speed of **Cor-Ban® 27L** because the output of **Cor-Ban® 27L** 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® 27L** 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 **5 Gallon (18.9 Liter) Cart Sprayer** spray methods.

HVLP	Cor-Ban® 27L 5 Gallon (18.9 Liter) Cart Sprayer
Soft spray of **Cor-Ban® 27L**	More aggressive fan spray of **Cor-Ban® 27L**
Slow **Cor-Ban® 27L** output	Fast output of **Cor-Ban® 27L**
Very forgiving when applying **Cor-Ban® 27L**	**Cor-Ban® 27L** can run quickly
Less overspray bounce of **Cor-Ban® 27L**	More fogging potential for **Cor-Ban® 27L** than with **HVLP** spray method

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Methods For Applying Cor-Ban® 27L (Continued From Page 5):

5.) Electro-Static Spray Gun Setup

Electro-Static Spray Gun

A.) Minimize the flow of **Cor-Ban® 27L** for the required coating speed and film thickness.

B.) Minimizing the target distance of spraying **Cor-Ban® 27L**.

C.) Ensure that the **Cor-Ban® 27L** 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® 27L**.

E.) Gradually increase in-line air pressure so that the spray provides proper **Cor-Ban® 27L** 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® 27L**.

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® 27L** are properly setup for the following reasons below.

*Decrease odor, fogging, and mist from the application of **Cor-Ban® 27L**
*Increase the transfer efficiency of the **Cor-Ban® 27L** from the equipment to the area it needs to be applied to
*Ensure that **Cor-Ban® 27L** will be applied according to how it was designed to be applied with respect to **optimum weight to performance balance**

Preheat **Cor-Ban® 27L** to **100˚F - 120˚F (38˚C -49˚C)** to speed its application to parts.

Cor-Ban® 27L can be applied at **room temperature** or any **elevated temperature** based on the desired type of coverage from it.

For **in-service applications**, please contact the appropriate **manufacturer's service engineering** for details.

Areas Where Cor-Ban® 27L Should Be Applied:

1.) Cor-Ban® 27L can be applied on:

* Panel Fasteners
* Antennas and External Antenna Mounts
* Many Substrates (All Metal Surfaces, Dissimilar Metals, ect)
* Landing Gear
* Fuel Access Panels
* Lavatory
* Galley Areas
* Applications Involving Static Joints
* Intricate Parts
* Alignment and Shear Pins
* Threaded Fasteners
* Miscellaneous Hardware

Metal Surface

Landing Gear

Fasteners

Lavatory

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Methods For Applying Cor-Ban® 27L To Test Panels:

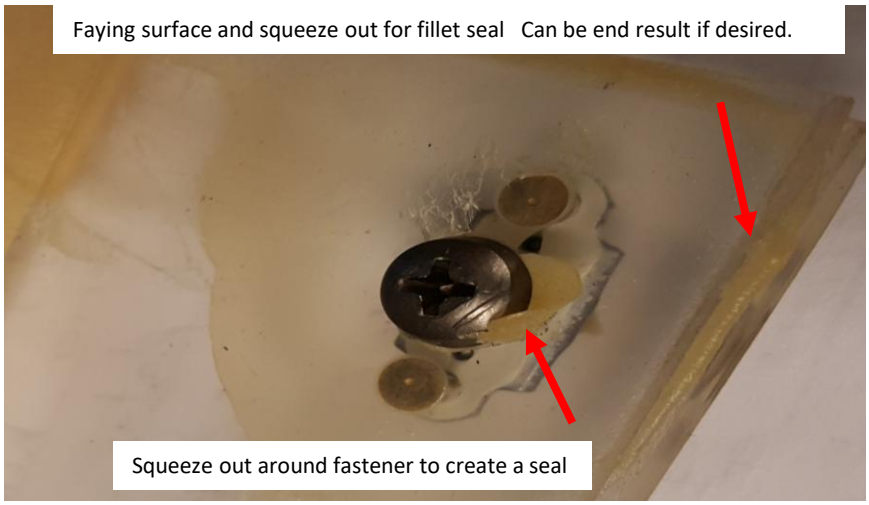
1.) Apply the **Cor-Ban® 27L** paste into each hole and attach the surface hole to ensure that the cavity is filled to the top of the hole.

2.) Install the simulated access panel →

3.) Apply **Cor-Ban® 27L** to the panel fastener to allow for and to squeeze out during installation.

Note: After fasteners are installed, wipe off the panels and squeeze out **Cor-Ban® 27L** .

Results of suggested process around hardware:



3.1.) Cor-Ban® 27L squeeze out around the fastener's circumference is achieved.

3.2) Cor-Ban® 27L is pressed into gaps and prevents exterior moisture intrusion or condensation from entering the assembled joint.

3.3) Cor-Ban® 27L is forced through the fastener hole, encapsulating hole in the simulated access panel and substructure hole completely. →

3.4.) Cor-Ban® 27L is forced into and around anchor nut as seen with the **Cor-Ban® 27L** protrusion on backside of anchor nut. →

3.5.) The compression between surfaces allows for complete air-tight seal spreading outward from area requiring protection. →

Benefits Of Applying Cor-Ban® 27L To Test Panels:

A simple process where no additional corrosion protection compound (CPC) application is required.

The fastener can easily be removed when **Cor-Ban® 27L** is applied to it.

Cor-Ban® 27L provides protection that reduces **labor hours** at all levels of **aircraft maintenance**.

The number of materials that are used for corrosion removal processes on structures are reduced when **Cor-Ban® 27L** is applied to them. That way, the life limits for those substrates can be increased.

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Working Temperature For Cor-Ban® 27L:

The typical working temperature range for **Cor-Ban® 27L** is: **-65°F to 180°F (-54 to 82°C)** but has been applied in temperatures up to **280°F (138°C)** for **gearbox applications**.

Cor-Ban® 27L can withstand brief exposure to temperatures up to **500°F (260°C)** with little impact on its corrosion protective properties

Methods For Removing Cor-Ban® 27L:

Cor-Ban® 27L 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® 27L** 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**
* **Zip-Strip™ 125M**
* **Mineral Spirits**

Note: MEK and other ketones will not remove **Cor-Ban® 27L**.

Cor-Ban® 27L Product Pictures, Zip-Chem® Product Packaging Part Numbers, and Other Materials To Purchase:

Cor-Ban® 27L
*5 Fluid Ounce (148 mL) Tubes-**009402**
*Case of 12 of 9.8 fl oz (172 mL) packaged within a standard 6 oz (170 gram) Semco cartridge-**009403**
*14 fl oz (414 mL) Grease Cartridges-**009873**
*Pint (473 mL) Cans-**009404**
*Quart (946 mL) Units-**009405**
*5 Gallon (18.9 Liter) Pail-**002099**
*Specialized packaging forms available upon request

Zip-Strip™ 125M
*Case of 12 of 16 fl oz (473 mL) Aerosols-**102614**
*Case of 4 each Gallon (4 each of 3.8 Liter) Cans-**102608**
*5 Gallon (18.9 Liter) Pails-**102609**
*55 Gallon (208 Liter) Drum-**102610**
*Specialized forms of packaging available upon request

Cor-Ban® 22
*Case of 24 of 4 fl oz (118 mL) Aerosols (103734)
*Case of 12 of 16 fl oz (473 mL) Aerosols (007047)
*Case of 4 each Gallon (4 each of 3.8 Liter) Cans (009400)
*5 Gallon (18.9 Liter) Pail (007049)
*55 Gallon (208 Liter) Drum (007050)
*Specialized packaging forms available upon request

Sur-Prep® 3167
*Case of 12 of 16 fl oz (473 mL) Aerosols-**103765**
*Case of 4 each Gallon (4 each of 3.8 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 Part of & ADDEV MATERIALS

Cor-Ban® 27L Instruction Manual

Cor-Ban® 27L Product Pictures, Zip-Chem® Product Packaging Part Numbers, and Other Materials To Purchase (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 3.8 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)**

Sur-Prep® 3160
*Case of 12 of 16 fl oz (473 mL) Aerosols-**010938**
*Case of 4 each Gallon (4 each of 3.8 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 90 Individual Towelettes-**011844**
*Specialized forms of packaging upon request

Masking Tape | Tin Foil | Gloves | Protective Eyewear

Standard Pneumatic Gun | Anchor Nuts | Protective Clothing | Ratchet Sealant Gun | Wiping Devices | Panels | Fasteners

Naphtha Based Wipe Solvents Or The Equivalents | Vacuum | Mineral Spirits | Curing Materials and Devices | Spray Equipment

Lighting and Inspecting Equipment | Bulk Application Equipment

← NSN: 6850-01-531-7357 (5 fl oz. (148 mL) Tube)

← *1 Gallon (3.8 Liter) Cans

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

Cor-Ban® 22 NSN: 6850-01-523-4290 (16 fl oz (473 mL) Aerosol), NSN 6850-01-531-7352 (5 Gallon (18.9 Liter) Pail)

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)

For application questions regarding **Cor-Ban® 27L**, contact **Zip-Chem® Aviation Products** at **(1) 408 782 2335** or **zipchem@addevmaterials.com**.

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