

# Northern **FUEL TANK LINER**

**STAYS FLEXIBLE** – Will never crack or peel off.

**ALCOHOL RESISTANT** – No expensive come-backs.

**BRIGHT BLUE COLOR** – Both you and your customer can see results.

**COVERS RUST** – Seals old rust in and prevents future rusting.

**SEALS LEAKS** – Gets the multitude of pin-holes you can't find.

Northern Fuel Tank Liner is easy to use and effective when the directions are followed. It internally seals the multitude of small leaks that often form due to age, rust or where the straps wrap around the tank. If you fix the major leaks, Northern Fuel Tank Liner seals the rest!

Northern Fuel Tank Liner is resistant to gasoline, diesel fuel, ethanol and other fuels or fuel additives. It is designed to seal new or existing fuel tanks with minor leaks.

Contrary to what some people will tell you, rust **does** form inside gas tanks. The cause is condensation and water in the fuel. Northern Fuel Tank Liner seals rust under the liner coating so it cannot flake off to plug fuel-line filters or cause additional damage. Further rusting is also reduced.

Some of the specific advantages of Northern Fuel Tank Liner are as follows:

1. The coating is very flexible and does not crack. This gives the repair a much longer life
2. The polymer was specifically chosen because of its tight adhering qualities. In comparison to other coatings, Northern Fuel Tank Liner does not peel off even when the metal is bent. This protects against loosening of the coating by vibration or denting of the tank.
3. Northern Fuel Tank Liner is resistant to methanol, alcohol and other fuel additives. However, we do not recommend Fuel Tank Liner be used for sealing fuel tanks which store straight alcohols, methanol, Isopropyl or ethanol.
4. Northern Fuel Tank Liner levels out to the surface uniformly. You will not get a wide variation in thickness as with some other coatings.
5. Northern Fuel Tank Liner is thicker and usually requires only one coat as opposed to two coats for many other coatings. Holes up to 1/32<sup>nd</sup> may be coated and sealed safely. Rust is sealed in so that it cannot flake off.
7. The blue color is easily visible to you and the customer. You can be sure that you didn't miss a spot. NOTE: over time, the blue dye used in Northern Fuel Tank Liner may leach into the gasoline (turning it green). Generally this is only noticed when the vehicle has been in storage for an extended period of time.

**Directions: (Please note the special instructions for Diesel tanks section if you are lining a diesel tank) Please review the warning section prior to starting your project.**

1. Empty all fuel from tank. Remove fuel tank from vehicle.
2. Remove sending unit, float, feed lines, filters, anything that could be clogged by the coating.
3. Remove any loose rust by tapping on the tank with a rubber mallet or by tumbling with a piece of chain in the tank. Flush out debris.
4. Clean tank by using and following the directions of Northern Tank Cleaner found in the kit or sold separately, part #RW0125-77.

5. Any leaks larger than 1/32<sup>nd</sup> of an inch should be repaired prior to lining. Northern recommends that the tank be brought to a repair facility that has experience in soldering, NEVER weld on a fuel tank or solder with a flame!

6. It is important to make sure that the tank is completely dry before continuing. The use of a blower to circulate air through the tank will cut the dry time substantially.

7. Follow the instructions of our Northern Tank Prep found in the kit or sold separately, (part # RW0125-55 pint or RW0125-56 quart). Pour 1/2 of the Northern Tank Prep into the tank, slosh thoroughly and pour out. On larger tanks you may need to repeat the process with the second 1/2 of Northern Tank Prep. Do not reuse the Northern Tank Prep. Instead let it evaporate safely away from flames or sparks

8. Cover all open holes in the tank by plugging or covering with tape, except the one to be used for pouring in the coating.

9. Pour Northern Fuel Tank Liner in to the tank, if you are going to completely line the tank you will want to cover the last opening. You can get by with one quart on tanks of about 12-20 gallons or less. We recommend two quarts for tanks larger than 20 gallons. A pint will typically be adequate for small engine and motorcycle tanks.

10. Tip the tank onto each side and slosh the coating around to completely cover the inside. Use a rocking motion rather than shaking. It is important to do a thorough job or you may miss parts of the tank behind baffles. You do not need to line the entire tank, only those portions that you wish to repair or seal. However, if you wish, you may seal the entire tank. If you are installing a new tank it is a good idea to line it prior to use as many new tanks are mild steel and have no lining protection.

11. Drain out the excess Tank Liner. Excess Northern Tank Liner may be poured back into the original container, cover tightly to save for reuse. The best method is to turn the tank over and let it sit overnight so that the excess liner drains out the main filler opening. Place a receptacle under the drain opening to collect the excess as it drips out. It is very important that you do not leave puddles in the tank.

12. Open all tank openings to allow the best air flow. Air-dry for 8-24 hours. When cured there will be almost no solvent smell left in the tank. If the coating is not completely cured before fuel is added, the curing process will be stopped. Do not use open flame or an electric element for drying or an explosion may result. Do not blow air into the tank until at least 60 minutes of drying time has passed. Using air sooner may cause bubbles to form in the coating. **NOTE: when drying a finished (painted) motorcycle tank, there must be a small amount of air movement towards the tank as the fumes from the liner can be caustic to the painted finish of the tank.**

12. If the leaks or rust are severe, it is a good idea to use a second coat after the first coat dries completely.
13. Reassemble and install the tank on the vehicle.
14. For clean-up use methyl ethyl ketone, acetone or a quality lacquer thinner with no alcohol in it. Solvents such as methyl ethyl ketone, acetone, methylene chloride and propylene oxide will dissolve the cured liner if it remains in contact. Other industrial solvents will affect the liner but not completely dissolve it.

#### **Diesel Tank: Special Instructions**

1. Northern Tank Liner is impervious to Diesel Fuel and has been tested with 2% bio-diesel as some states require without incident. However, higher levels of bio-diesel blends or straight bio-diesel or other fuels have not been tested as there are a multitude of bio-diesel sources and the available product varies in chemical make-up.
2. New Diesel tanks and most used diesel tanks can be successfully lined. Older tanks and/or used tanks that have been stored with fuel for any extended period of time may have a build-up of paraffin deposited on the tank wall from the stored fuel. The paraffin creates a waxy, slippery coating on the tank. Most paraffins are removed from gasoline so the incidence of paraffin contamination is very slight. However, diesel fuel may contain far greater paraffins than gasoline and stagnant storage for an extended period may cause the paraffins to leach from the fuel and deposit on the tank wall. Unfortunately, there is no chemical method to remove paraffin deposits. Please inspect all used tanks carefully. A borescope or other remote viewing device with a self-contained light source may be necessary to determine if paraffin contamination is a problem. Should paraffin be present on the tank wall, the lining will peel off the paraffin and lining a paraffin contaminated tank is not recommended. If paraffin deposits are present, we recommend you have the tank professionally steam cleaned or have a professional service facility cut the tank open and sand blast the interior surfaces, or simply replace the tank.

This paraffin contamination occasion is very isolated and not the norm. However, if you have questions, please give Northern a call (800-328-8900) for further advice.

#### **Tips & Hints:**

Do not leave the can open to the air as it will thicken or form a skin on top. When Northern Fuel Tank Liner is reused after pouring it back out of a fuel tank, it may need thinning before reuse. Northern Fuel Tank Liner may be thinned with M.E.K. or Acetone. Do not use lacquer thinner to dilute Northern Fuel Tank Liner.

For removing water from the tank prior to coating you may use acetone. Acetone absorbs much more water than M.E.K. and is less expensive.

Some shops punch a hole in a corner of the tank to aid in draining it completely. Then they solder in a draincock. Do not solder or weld on the tank after it has been coated. The coating will turn to ash if heated above 250 Degrees Fahrenheit.

Some of our customers have reported a way to speed up the process significantly. They are thinning Northern Fuel Tank Liner about 20-25% with M.E.K. (1 part M.E.K. to 4-5 parts Northern Fuel Tank Liner). This allows the Fuel Tank Liner to dry in only a couple of hours in many cases. They also report that using air to dry the inside does not cause the

bubbles that form when straight Northern Fuel Tank Liner is dried with air. You will get a much thinner coating. We are told that two of these thin coats still take less time to dry than one thick coat.

Northern Fuel Tank Liner is not recommended for non-metal surfaces. Northern Fuel Tank Liner will not adhere to plastic tanks or fiberglass tanks.

Do not coat over other coatings. Remove old coatings completely first, using M.E.K. or other solvent. Call us if you have a problem.

The two most common problems are:

1. Not completely drying the tank of water before coating. Northern Fuel Tank Liner will not adhere to and is affected by wet metal.
2. Not allowing Northern Fuel Tank Liner to dry completely. If Northern Fuel Tank Liner is not completely dry or has puddles left, it will not seal or perform properly. Make sure that baffles and corners are dry and free of puddle Tank Liner.

#### **Warnings:**

1. Northern Fuel tank Prep (#RW0125-55 & RW0125-56) and Fuel Tank Liner (RW0125-1, RW0125-2 & RW0125-3) is very flammable in liquid form. NEVER use any spark, open flame, torch or heating element within 20 ft of either of these products.
2. Always use Northern Fuel Tank Liner products in an open and well vented area. The safest use is outdoors where no risk of vapor accumulation occurs.
3. Never store the evacuated gasoline or diesel fuel from the fuel tank in the area where the tank lining process will occur. All stored fuels should be processed as required by your state or local ordinances.
4. DO NOT RUSH the job, DO NOT LET lining puddle in the tank. 99% of all lining failures occur when the instructions aren't fully followed or when the lining isn't fully drained from the tank. Lining which is allowed to puddle dries a skin layer over the liquid and doesn't allow the puddle underneath to dry. The puddle eventually breaks open in the presence of fuel and the lining forms long strings and plugs up the fuel lines, filters etc...
5. Used fuel tanks can explode if expose to a spark, flame or welding. Never use any fire or explosive source near any used fuel tank.



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