TRENTON®

TRENTON

WAX-TAPE® SYSTEMS

An effective, long-lasting anticorrosion system for aboveground and belowground pipe, irregular fittings, bridge spans and transitions.

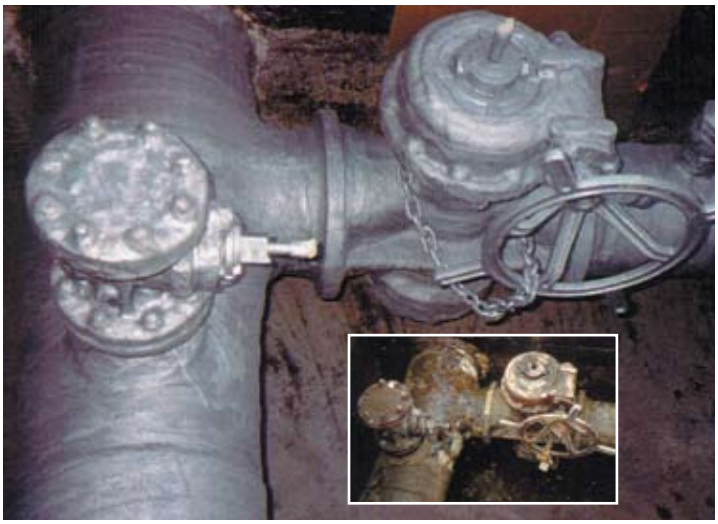
Trenton Corporation is an ISO 9001-2000 registered company

A Complete Protection System

Trenton's primers, tapes and outerwraps form a complete system.

Since 1949 the Trenton Corporation has provided excellent anticorrosion coating systems for a variety of environments. A complete protection system, it includes a selection of primers, tapes and outerwraps that work together to protect your resources. As you assess your situation and select the proper combination of products, you will receive the most effective corrosion protection available.

Wax-Tapes can outperform paint in many situations, lasting much longer and providing better mechanical protection.



Trenton Wax-Tapes, such as #2A Wax-Tape®, excel in limited-access situations, such as vaults, where surface preparation is difficult.

Sometimes sandblasting is awkward and environmentally questionable, particularly when the work is directly over a river or stream. Wax-Tapes do not require sandblasting.

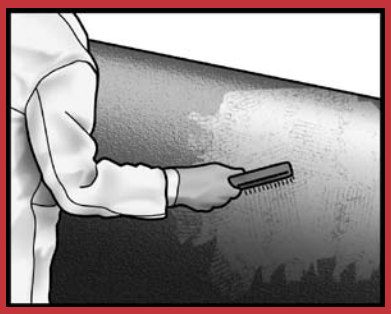
Trenton's #1 Wax-Tape protects irregularly shaped underground fittings and is compatible with cathodic protection.

An easy-to-use system that field hands can quickly master.

Customers have been impressed when removing a small patch of Trenton Wax-Tape for inspection purposes. They consistently find the surface in the same condition as when the tape was first applied. After inspection, the small patch can then be reapplied for continued protection.

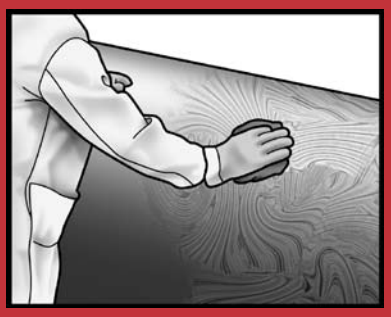
Trenton Wax-Tapes are highly valued because they provide excellent protection and are very easy to use.

Trenton Wax-Tape Application Process



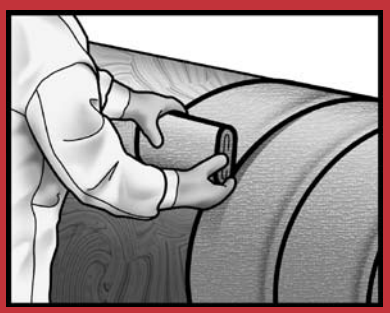
Step 1

Prepare Surface:
Use a wire brush to clean off loose rust and dirt.



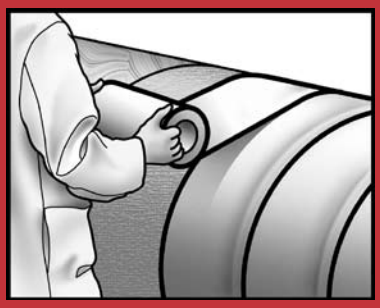
Step 2

Apply Primer:
Rubbing the primer onto the surface displaces any moisture.



Step 3

Apply Wax-Tape:
After the initial wrapping, pressing the tape to the pipe removes air bubbles.



Step 4

Apply Outerwrap (Optional):
Trenton offers a choice of outerwraps for added protection.

TRENTON
WAX-TAPES

Trenton Wax-Tapes are unique and made of high-quality materials.

When considering an anticorrosion system, it is important to understand the unique features and benefits of Trenton products. The concept of wrapping a pipe or fitting with a thick tape to form a continuous, effective protective coating is still foreign to some people. The fact that the tapes are not "rock hard" sometimes makes it hard to understand how they can protect for so long. In fact the tapes form a better protection than paint, and they do not require the surface preparation that is so essential when using paints and epoxies.

Trenton's tapes use microcrystalline wax and are thick, with no fillers. This means they stay conformed to irregular fittings and provide excellent protection.

Trenton's #2A Wax-Tape provides long-lasting protection from ultraviolet damage, weathering and road salt runoff. The inset photo shows the bridge span 15 years earlier, when the tape was first applied. Trenton has several such long-term applications, with no end-of-service in sight.

#1 Wax-Tape

The belowground tape remains pliable and supports cathodic protection.

Trenton #1 Wax-Tape resists corrosion on belowground pipe, including wet and irregular surfaces. It requires no waiting time or drying time, can be backfilled immediately and is compatible with cathodic protection. Trenton #1 Wax-Tape is user friendly, contains no VOCs, is nontoxic, nonhazardous and noncarcinogenic. It provides excellent protection for a variety of applications, including couplings, valves, fittings, weld cutbacks and cadwelds.

Trenton's #1 Wax-Tape provides long-lasting protection and is compatible with many types of materials such as steel, ductile iron and PVC.

Trenton's #1 Wax-Tape is used in the water industry and conforms to AWWA Standard C217.

#2 Wax-Tape

The aboveground tape slowly firms up and protects against the elements.

Trenton #2 Wax-Tape resists corrosion on aboveground pipe, bridge crossings, vaults, and other straight or irregular surfaces. It is easy to apply, requires no special equipment, is compatible with most other coatings, and requires only minimal surface preparation. Nontoxic and noncarcinogenic, #2 Wax-Tape is composed of inert, nonbiodegradable materials, so it is essentially unaffected by the elements.

A sweating meter run pipe protected with #2A Wax-Tape demonstrates the tape's ability to protect in wet conditions.

Trenton's #2A Wax-Tape completely conforms to irregular surfaces, such as this gas wellhead, and is unaffected by the elements.

TRENTON PRIMERS

Trenton primers are a key reason why the Trenton Wax-Tape System is so effective in mitigating corrosion. The primers penetrate surface rust in preparation for the application of the Wax-Tapes, which means that field applicators only need to use a wire brush to prepare the surface. The primers thoroughly wet the surface of the pipe and require no specific surface profile or anchor pattern for proper adhesion. Trenton primers are required in order to create an effective anticorrosion system.

Primers penetrate the surface rust to displace moisture and "wet" the surface.

Wax-Tape Primer (Brown or White)

The Wax-Tape Primer remains spreadable even in cold conditions.

Here Trenton's #2A Wax-Tape is being applied over the Wax-Tape Primer (white). Notice that the Wax-Tape Primer can be applied to the pipe after only minimal surface preparation.

Temcoat and Temcoat 3000

Temcoat/Temcoat 3000 is a heavy-duty primer and does not melt.

Temcoat provides a highly robust protective coating that is made even more effective with the addition of Wax-Tape.

Temcoat is being applied to a concrete pad, in preparation for a layer of Wax-Tape, before the installation of a storage tank.

Free videos, samples and technical information are available from Trenton.

Call 734-424-3600 or e-mail trenton@trentoncorp.com.

TRENTON OUTERWRAPS

Trenton outerwraps provide mechanical protection and resist soil stress.

Oftentimes Trenton Wax-Tapes are used with no outerwrap, but sometimes conditions indicate that more mechanical protection is required. Trenton offers a range of outerwraps in order to meet the needs of each situation.

The MC Outerwrap in particular provides a very hard coating, so it is used in applications where a pipe "transitions" from aboveground to belowground. Not only can it withstand an industrial-strength weed cutter, MC Outerwrap can weather the frost heave that stresses coatings during the winter months.

Glas-Wrap & Guard-Wrap Outerwraps

Glas-Wrap is a fiberglass wrap and Guard-Wrap is a wax-impregnated, non-woven fabric wrap.

This is a section of 16" pipe reconditioned using #1 Wax-Tape and Glas-Wrap.

Poly-Ply Outerwrap

Poly-Ply is a multi-layer version of plastic wrap. It helps keep a separation between the tape and the soil.

MC Outerwrap

One of Trenton's newer products is MC Outerwrap, developed for situations that require mechanical protection.

The "MC" in MC Outerwrap stands for "moisture cured." The materials in the wrap start to cure when they are exposed to the moisture in the air. Soon the wrap provides a very hard and tough outer coating.

A World of Applications

Trenton products are used globally, in a variety of environments.

Utilities and other companies have found many uses for Trenton Wax-Tapes, Primers and Outerwraps. One reason is that the tapes are “forgiving.” During the tape application, the applicator can easily correct deficiencies by repositioning the tape. Wax-Tape application crews become effective and efficient immediately, because the application process is so easy to learn and to correct.

As more companies become aware of Trenton Wax-Tapes, new and innovative applications are being discovered.

The Wax-Tape System is particularly effective in situations where it is difficult to sand blast. In addition, If any of the fittings need to be accessed, Trenton Wax-Tape is easily removed. Then replacement tape is just as easily reapplied.

Trenton products are available through a network of distributors and representatives around the world.

Consider Total Costs

Trenton Wax-Tapes are very cost-effective, especially when the total cost of the project is taken into consideration.

- **Operator Training**

The Trenton Wax-Tape System requires minimal operator training because it is easy to apply and the tape can be repositioned after it is placed on the pipe.

- **Required Equipment**

No special spray equipment or heating devices are required — only a wire brush.

- **Surface Preparation**

No sand blasting or powered wire brushing is necessary. Using a wire brush by hand to remove loose dirt and rust is all that is required. The surface can even be wet.

- **Application Conditions**

No need to wait until the temperature is warm enough or dry enough. The crew is always working.

- **Cost of Materials**

Trenton Wax-Tapes require only a 1-inch overlap, creating a more cost effective application when compared to other systems. We usually recommend a 50% overlap in pipe soil to transition areas.

- **Time Before Backfill**

With no curing time required, Trenton Wax-Tape applications can be immediately backfilled, adding up to major savings in crew time.

- **Length of Service**

Wax is inert and does not degrade over time, so Wax-Tapes offer very long service. Long after a paint coating needs to be re-sandblasted and re-painted, Trenton Wax-Tapes continue to protect.

A Solution for Your Situation

Applications	Products
BELOWGROUND APPLICATIONS	Use #1 Wax-Tape for belowground applications
Normal conditions	Use Temcoat
Above 80°F ambient	Use Temcoat
Below 50°F	Use Temcoat 3000 or Wax-Tape Primer
Wet pipe	Use Wax-Tape Primer, which is exceptionally good at displacing water
Large-diameter pipe	Use an outerwrap, such as Guard-Wrap or MC Outerwrap
Soil stress	Use an outerwrap, such as Guard-Wrap or MC Outerwrap
Leaching soil	Use an outerwrap, such as Glas-Wrap, Guard-Wrap or Poly-Ply
ABOVEGROUND APPLICATIONS	Use #2 Wax-Tape for aboveground applications
Normal conditions	Use Temcoat or White Wax-Tape Primer (for white or aluminum #2 Wax-Tape)
Cold	Use Temcoat 3000 or Wax-Tape Primer
Wet pipe	Use Wax-Tape Primer
Transition	Use MC Outerwrap
Need for mechanical protection	Use MC Outerwrap

Trenton's #2 Wax-Tape (the brown pipe in this photo) provides long-lasting protection in hard-to-access situations.

The minimal surface preparation required resulted in major cost savings. And after the pipe that was painted gray needs to be repainted, the Wax-Tape will still provide many more years of service.

WAX-TAPES

#1 and #2 Wax-Tapes

Description:
#1 and #2 Wax-Tapes are composed of microcrystalline waxes, plasticizers and corrosion inhibitors (no clay fillers) saturated into a non-woven, non-stitch bonded synthetic fabric, forming a tape wrapper. They also contain no siliceous mineral fillers.

End Use:
For application on underground metal surfaces, pipe or fittings to prevent corrosion.

Application Procedures:
For both #1 and #2 Wax-Tapes, wire brush and scrape the surface clean of dirt, loose coating and loose rust. Apply a thin film of Wax-Tape Primer. If the surface is wet, cold or rusty, rub and press on primer to displace moisture and ensure adhesion. Then wrap #1 or #2 Wax-Tape, using a 1" overlap. On straight pipe, apply slight tension to ensure contact with surface. On irregular surfaces, allow slack so the tape can be molded into conformity. In either case, press and form the tape so there are no air pockets or voids under the tape. Also, press and smooth out the lap seams to ensure they are sealed. The tape does not require curing or drying time, so it can be backfilled immediately. For belowground pipes that are 10" or larger, apply a Trenton outerwrap. For aggressive soil conditions, a Trenton outerwrap, a rock shield, or select backfill should be considered.

Packaging:
Rolls are packed in cardboard cartons, approximately 35 lb/case.
2" x 9' rolls (48 rolls/case)
4" x 9' rolls (24 rolls/case)
6" x 9' rolls (16 rolls/case)
6" x 18' rolls (8 rolls/case)
9" x 18' rolls (6 rolls/case)
12" x 18' rolls (4 rolls/case)
Special widths and lengths available

Specifications:

	#1 Wax-Tape	#2 Wax-Tape
Color:	Brown	Brown, aluminum, white*
Thickness:	70 - 90 mil	
Weight:	4 lb/sq yd	
Dielectric strength:	170 volt/mil	
Application temperature:	0° - 110°F	
Operating temperature:	-50° - 120°F	-50° - 140°F
Saturant pour point:	115° - 125°F	

**Also available in yellow, red, blue and green*

Contact Trenton headquarters or your local distributor for assistance in calculating the quantity of product required for your situation.

PRIMERS

Temcoat and Temcoat 3000

Description:
Temcoat and Temcoat 3000 are high-temperature microcrystalline wax-based coating compounds that will not melt and can be applied at ambient temperatures up to 200°F. They do not require a primer or curing time and are easily applied by hand. Temcoat 3000 is designed to maintain spreadability at lower temperatures.

End Use:
Temcoat and Temcoat 3000 are used as an anticorrosion compound for aboveground and belowground surfaces. They can be used as a cold-applied coating with a wrapper or as a priming paste with Wax-Tapes. Because of their paste-like consistency over a wide temperature range, they are an excellent material for filling voids. They can be used for straight pipe, irregular fittings and flat surfaces.

Application Procedures:
Wire brush and wipe the surface clean of any loose coating, rust, scale and foreign matter. Then apply Temcoat by hand directly to the surface. At higher temperatures, Temcoat can be applied by brush. On wet surfaces, rub and press firmly to displace moisture and ensure adhesion. For belowground applications, to protect Temcoat from mechanical abrasion, overwrap with Poly-Ply, Guard-Wrap or #1 Wax-Tape. For aboveground applications, overwrap with #2 Wax-Tape.

Packaging:
3-gallon pails (approximately 24 lb/pail)
1-gallon cans (4 gallons/case, 32 lb/case)

Specifications:

	Temcoat	Temcoat 3000
Color:	Brown	
Pour point:	Non-melting	
Flash point:	350°F (minimum)	
Dielectric strength:	100 volts per mil	
Application temperature:	32° - 200°F	0° - 200°F

Wax-Tape Primer

Description:
Wax-Tape Primer is a blend of microcrystalline waxes, plasticizers, and corrosion inhibitors (no clay fillers). It has a paste-like consistency and is designed to displace moisture and wet the surface, ensuring adhesion of the tape.

End Use:
As a surface conditioner for aboveground metal surfaces prior to application of Trenton Wax-Tapes.

Application Procedures:
Wire brush and wipe the surface clean and as dry as possible. Apply the Wax-Tape Primer by hand, rubbing and pressing the primer firmly onto the surface, especially if the surface is wet, cold or rusty, to displace any moisture and ensure adhesion to the surface. Trenton Wax-Tapes may be applied immediately.

Packaging:
One-gallon cans (four gallons/per case, 32 lb/case)

Specifications:

	Brown	White*
Color:		
Pour point:	100° -110°F	110° -120°F
Flash point:	350°F	
Coverage (approximate):	1 gal/100 sq ft	

**White primer should be used with aluminum or white #2 Wax-Tapes.*

OUTERWRAPS

Glas-Wrap

Description:
Glas-Wrap is a white, resin-coated, woven fiberglass fabric.

End Use:
Used as an overwrap for Trenton's #1 Wax-Tape for additional protection against backfill and soil stress.

Application Procedures:
Apply Glas-Wrap over the #1 Wax-Tape using a 1" overlap, rubbing firmly onto the Wax-Tape.

Packaging:
4" x 150' rolls (18/case)
6" x 150' rolls (12/case)
12" x 150' rolls (6/case)
100 square yards per case, 13 lb per case

Specifications:

Tensile strength (per 1" width):	85 lb minimum
Thread count per inch:	
Wrap threads:	20
Fill threads:	10
Thickness:	.005 in.
Color:	White

MC Outerwrap

Description:
MC Outerwrap is a specialized blend of quick-curing resins impregnated into a polyester fabric. It provides soil stress and backfill protection to coatings that need additional mechanical strength. MC Outerwrap is specifically designed as a "hard shell," UV-stable outerwrap over the Wax-Tapes. It can also be used over other coatings. It is sold complete with gloves and Trenton End Adhesive. MC Outerwrap is hand applied, with no other application materials needed.

End Use:
MC Outerwrap is used aboveground or belowground as a mechanical protective wrapper over Trenton's Wax-Tapes.

Application Procedures:
Pre-apply any of Trenton's coatings and then, with only enough tension to keep the slack out, spiral wrap MC Outerwrap with at least a 50% overlap (use 80% overlap for added strength in high stress areas, such as transition pipe in clay soils). Make sure MC Outerwrap is extended out past the new coating on both ends for better anchoring. At the end of the last roll, brush on End Adhesive for MC Outerwrap to prevent possible unraveling before the wrap has cured.

Packaging:
Rolls are individually vacuum packed in foil bags.
6" x 40' rolls (2.25 sq yd)
NOTE: Alternative sizes may be available at an additional cost.

Specifications:

Color:	Black
Average thickness:	30 mil (when cured)*
Application temperatures:	-20° - 125°F
Operating temperatures:	-30° - 250°F**

** Thickness depends on amount of overlap.*
*** Trenton Wax-Tapes have a maximum operating temperature of 125°F.*

Poly-Ply

Description:
Poly-Ply plastic wrapper consists of three membranes of .5-mil clear, polyvinylidene chloride high-cling plastic, wound together as a single sheet. It provides a mechanical and electrical barrier while remaining flexible enough to conform to irregularly shaped surfaces. It is inert, will not deteriorate, and is resistant to chemicals and bacteria commonly found in soil.

End Use:
As a wrapper over cold-applied Temcoat on straight pipe and irregular metal surfaces, such as tees and couplings.

Application Procedures:
Pre-apply Temcoat and wrap Poly-Ply over the coated surface.

Packaging:
Coreless rolls are packaged in cardboard cartons, 50 sq yd per carton.
4" x 50' rolls (27 rolls/carton)
6" x 50' rolls (18 rolls/carton)
9" x 50' rolls (12 rolls/carton)
12" x 50' rolls (9 rolls/carton)
18" and 36" widths available by special order.

Specifications:

Color:	Clear
Thickness:	1.5 mils
Dielectric strength:	2000 volts/mil
Water absorption:	Negligible

Guard-Wrap

Description:
Guard-Wrap consists of a spunbonded polyester mat, saturated with microcrystalline wax, that is laminated to a polyester film which is coated with microcrystalline wax. Its conformability makes it ideal for wrapping fittings. It also works well on straight pipe.

End Use:
Guard-Wrap can be used as a protective wrapper over various Trenton coatings, such as Temcoat and #1 Wax-Tape. It offers mechanical protection from backfill and soil stress, provides an additional moisture barrier and increases dielectric strength.

Application Procedures:
Pre-apply the Trenton coating and then wrap Guard-Wrap over the coating, allowing for at least a 1" overlap. It is preferable to apply the dull side against the pipe and the smoother, film side against the soil. On straight pipe, Guard-Wrap can be either spiral-wrapped or cigarette-wrapped and is applied with some tension. On irregular surfaces, slack is allowed in the Guard-Wrap so it can be formed and molded to the contours of the surface.

Packaging:
Rolls are packed in cardboard cartons, 50 sq yd per carton.
6" x 150' rolls (6 rolls/carton)
12" x 150' rolls (3 rolls/carton)
18" x 150' rolls (2 rolls/carton)

Specifications:

Color:	Brown
Polyester film thickness:	.5 mil
Total thickness:	10 - 14 mils
Dielectric strength:	3500 volts (min)
Wax melt point:	160° - 180°F

TRENTON

WAX-TAPE SYSTEMS

Product Benefits:

- Minimal surface preparation
- No special tools required
- User friendly
- Conformable to irregular surfaces
- Removable for inspection
- Compatible with other coatings
- No drying or curing time prior to backfill
- Environmentally friendly
- Clean MSDSs
- Noncarcinogenic
- An ISO 9001-2000 registered company

White Wax-Tape Primer and #2W Wax-Tape (white) were used over this water location, because sandblasting the pipe would have raised environmental concerns.

Many companies now use Trenton Wax-Tapes where they previously would have used paint.

TRENTON

Corporate Office:
7700 Jackson Road
Ann Arbor, MI 48103 USA
(734) 424-3600
Fax: (734) 426-5882
trenton@trentoncorp.com

Export/Houston Office:
1880 S. Dairy Ashford Rd., Suite #697
Houston, Texas 77077 USA
(281) 556-1000
Fax: (281) 556-1122
trenton.houston@sbcglobal.net

www.trentoncorp.com

Revised April 25, 2008