

Product Description Sheet

Maintenance, Repair & Operations, March 2006

PRODUCT DESCRIPTION

Loctite[®] Extend[®] Rust Treatment is a fast drying, milky white latex coating that is applied to rusted metal to stop rust, protect the surface and act as a primer for the finish coat.

TYPICAL APPLICATIONS

- Pipes and valves, fittings in refineries, tankers, power plants, domestic and commercial heating/cooling plants
- Trucks, trailers, storage tanks
- Fences, guard rails, conveyors, supports
- Overhead cranes, booms, floor gratings, ductwork
- Outdoor advertising sign supports/frames, municipal and highway sign posts and frames
- Bulkheads, overheads, decks, hatch covers, stacks on ships (topcoat with appropriate marine paint)
- Agricultural equipment, harvesters, plows, discs, tractors, corn pickers, etc.
- Snow removal equipment in highway department maintenance yards
- Paper mills, chemical plants, steel mills, utilities for maintenance of pipes, tanks, support steel, valves
- Castings and stampings before final machining

TYPICAL PROPERTIES OF UNCURED MATERIAL

Chemical Type	Synthetic latex resin
Appearance	Milky liquid
Odor	Mild
Specific Gravity	1.20
Viscosity	Flow similar to SAE 40 Motor Oil
Flash Point, TCC	None - aqueous medium

HEAT AGING

Resists heat aging up to 200°F continuously. Useful properties up to 250°F, for short exposure periods.

TYPICAL ENVIRONMENTAL RESISTANCE

Loctite[®] Extend[®] Rust Treatment is satisfactory for exterior exposure without a topcoat in mild environments. Two coats maximum are recommended. A 7 to 14 day drying and curing time is recommended. For severe environments, a suitable topcoat is required.

USE AND APPLICATION**Surface Preparation****1. Old Steel:**

Loose or "flaky" rust must be removed. Only conversion of firmly bonded rust will result in durable protection. Oil, grease, old paint, mill scale, form oil, fingerprints and water soluble surfaces and chlorides must be removed to allow Loctite[®] Extend[®] Rust Treatment to react with rust.

Loose rust, mill scale and oil paint should be removed preferably by power wirebrushing, followed by rinsing with water to remove powder and solubles. Manual wirebrushing, chipping, scraping and particularly rotopeening can also be used. Oil, grease, form oil and fingerprints should be removed before loose rust. Ideal surfaces will show light rust as well as bare metal surfaces.

2. Rust Conversion Time and Appearance:

Two coats of Loctite[®] Extend[®] Rust Treatment are recommended.

On lightly rusted steel (that has been wirebrushed), the first coat will start to develop a violet color within 60 seconds. This will become satin to flat black in appearance. The second coat should dry to a satin black appearance.

On heavily rusted steel (that has been wirebrushed), the first coat should develop a purple-black color within seconds. The second coat should dry to a black color with gloss varying from flat to satin. The second coat should be applied within 15 to 30 minutes of the first coat.

Directions for Use

1. Mix thoroughly before using.
2. Remove oil, dirt and grease from surface. Wire brush to remove flaky rust and loose scale. Some surface rust must be present
3. Pour into clean container for easy application by brushing or apply directly to surface and brush out.
4. Use of gloves is recommended.
5. Brush or sponge on liberally. An airless spray may also be used.
6. A black coating will appear within 5 minutes. Uneven color indicates need for additional coats for maximum protection. Recoat time 15 to 30 minutes. Allow 24 hours minimum to dry before finish paint.
7. Most finish paints will not require any additional primer. However, light color latex and metal filled paints require a solvent base primer on top of Loctite[®] Extend[®] Rust Treatment coating before finish application.
8. Brushes, rollers and other tools should be cleaned immediately with detergent and water. Flush spray equipment immediately after use with detergent and water. Loctite[®] Extend[®] Rust Treatment is difficult to remove when dry.

Hints and Precautions for Use

1. Surface preparation - remove loose or flaky rust, oil, grease, dirt, oil debonding paint, water soluble sulfates, chlorides, cutting oil residues.
2. If sandblasted, sufficient material should be applied to effectively cover the profile.
3. Application of 2 coats for 4 mils dry film thickness recommended for maximum durability.
4. Prolonged contact with water before fully cured may cause coating to turn white. After re-drying black appearance will return.

Application Conditions

Loctite[®] Extend[®] Rust Treatment may be applied when surface and air is between 50°F minimum and rising and 90°F maximum and falling. Reaction is slower at lower temperatures. If temperature is too hot, film may surface dry and bubble. High humidity is beneficial; it slows drying but assists rust conversion. Loctite[®] Extend[®] Rust Treatment should not be applied in conditions of condensing humidity (e.g. fog, dew), on ice, in rain or in heavy sea (salt) spray atmospheres. Steel surfaces may be damp but not wet (i.e. continuous visible film of water). **Do not apply Loctite[®] Extend[®] Rust Treatment to surfaces in direct sunlight.**

Application Equipment Methods

Loctite® Extend® Rust Treatment may be applied by brush, roller or spray. Brush or roller is suitable for small areas. Avoid sags and ridges and keep wet by coating about a square yard at a time. Roll away from previously coated area then roll back. **Do not pour unused material back into the original container or dip brushes in original container. NEVER add solvents to Loctite® Extend® Rust Treatment.**

Spray application is recommended for larger areas. Airless spray equipment is faster and provides more effective conversion due to improved surface penetration. Conventional air-spray equipment may be used, but Loctite® Extend® Rust Treatment may require thinning up to 10% with water for proper spraying.

Resistance to Moisture Solvents & Chemicals

Loctite® Extend® Rust Treatment should be topcoated for many applications. Continuous exposure of Loctite® Extend® Rust Treatment coating to water, solvents or chemicals can cause whitening, blistering or flaking of the latex film.

Loctite® Extend® Rust Treatment should not be used in applications involving continuous immersion in water or fluids. Loctite® Extend® Rust Treatment should be topcoated with products known to be resistant to the environment expected. Latex topcoats are not recommended without a suitable barrier coat.

Topcoat selection is dependent upon the environment to which the coating will be subjected. The following guidelines can be used. Topcoats are listed by their relative order of performance.

- Moisture/salt spray - high-build epoxies, coal tar epoxies, catalyzed urethanes, vinyls, chlorinated rubber
- Solvent Resistance - catalyzed urethanes, high build epoxies, coal tar epoxies, vinyls
- Acid Resistance - catalyzed urethanes, vinyls, coal tar epoxies, high build epoxies
- Alkali Resistance - catalyzed urethanes, coal tar epoxies, high build epoxies, chlorinated rubber
- Oxidizing Agent Resistance - vinyls, catalyzed urethanes
- Abrasion - epoxies, urethanes, alkyds

Where cratering, pitting or heavy surface profile is evident, use two coats of Loctite® Extend® Rust Treatment by a high build primer or topcoat with sufficient mil thickness to prevent pin-point corrosion. **As with all paint systems, a test patch is recommended.** Any reputable painting contractor or coating representative can also assist you.

The following primers should not be applied directly over Loctite® Extend® Rust Treatment:

- Zinc dust (zinc rich primers)
- Copper powder (anti-fouling paints)
- Industrial primers containing chromate are usually compatible, however a test patch should be completed to insure performance.

Clean Up

When Loctite® Extend® Rust Treatment dries, it is extremely difficult to remove; therefore, spatters should be cleaned as they occur. Immediately after use, contaminated brushes, rollers, trays, etc., should be cleaned with cold tap water and detergent. Spray equipment should be flushed through immediately with mild detergent and water and rinsed with fresh water. Containers should be closed after every use to prevent skinning.

If Loctite® Extend® Rust Treatment is spilled on clothes, the garment should be soaked with cold tap water as soon as possible and Loctite® Extend® Rust Treatment washed out before it dries. **Do not use ammonia, strong alkali detergents or hot water for clean up.**

Hands and nails should be cleaned with soap and water using a nail brush. Black stains from iron-contaminated Loctite® Extend® Rust Treatment can be removed from the hands with a mixture of 1 volume of liquid household bleach and 4 volumes of tap water, followed by washing with soap and water. Spills of Loctite® Extend® Rust Treatment should be flushed with large amounts of cold tap water.

Removal

Once dried, strong solvents such as paint remover will be required to remove Loctite® Extend® Rust Treatment from equipment and clothes. Mechanical abrasion may be necessary.

GENERAL INFORMATION

This product is not recommended for use in pure oxygen and/or oxygen rich systems and should not be selected as a sealant for chlorine or other strong oxidizing materials.

For safe handling information on this product, consult the Material Safety Data Sheet, (MSDS).

Where aqueous washing systems are used to clean the surfaces before bonding, it is important to check for compatibility of the washing solution with the adhesive. In some cases these aqueous washes can affect the cure and performance of the adhesive.

This product is not normally recommended for use on plastics (particularly thermoplastic materials where stress cracking of the plastic could result). Users are recommended to confirm compatibility of the product with such substrates.

Ordering Information

Item Number	Container Size
75430	1 qt. Bottle
75448	1 gal. Bottle
75465	5 gal. Pail

Storage

Store material in original container. Store between 8° to 28°C (46° to 82°F). Protect from freezing. When stored under these conditions, a one year shelf life may be expected. **TO PREVENT CONTAMINATION OF UNUSED MATERIAL, DO NOT RETURN ANY PRODUCT TO ITS ORIGINAL CONTAINER. KEEP CONTAINERS TIGHTLY CAPPED.**

Data Ranges

The data contained herein may be reported as a typical value and/or range. Values are based on actual test data and are verified on a periodic basis.

Note

The data contained herein are furnished for information only and are believed to be reliable. We cannot assume responsibility for the results obtained by others over whose methods we have no control. It is the user's responsibility to determine suitability for the user's purpose of any production methods mentioned herein and to adopt such precautions as may be advisable for the protection of property and of persons against any hazards that may be involved in the handling and use thereof. In light of the foregoing, **Loctite Corporation specifically disclaims all warranties expressed or implied, including warranties of merchantability or fitness for a particular purpose, arising from sale or use of Loctite Corporation's products. Loctite Corporation specifically disclaims any liability for consequential or incidental damages of any kind, including lost profits.** The discussion herein of various processes or compositions is not to be interpreted as representation that they are free from domination of patents owned by others or as a license under any Loctite Corporation patents that may cover such processes or compositions. We recommend that each prospective user test his proposed application before repetitive use, using this data as a guide. This product may be covered by one or more United States or foreign patents or patent applications.

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